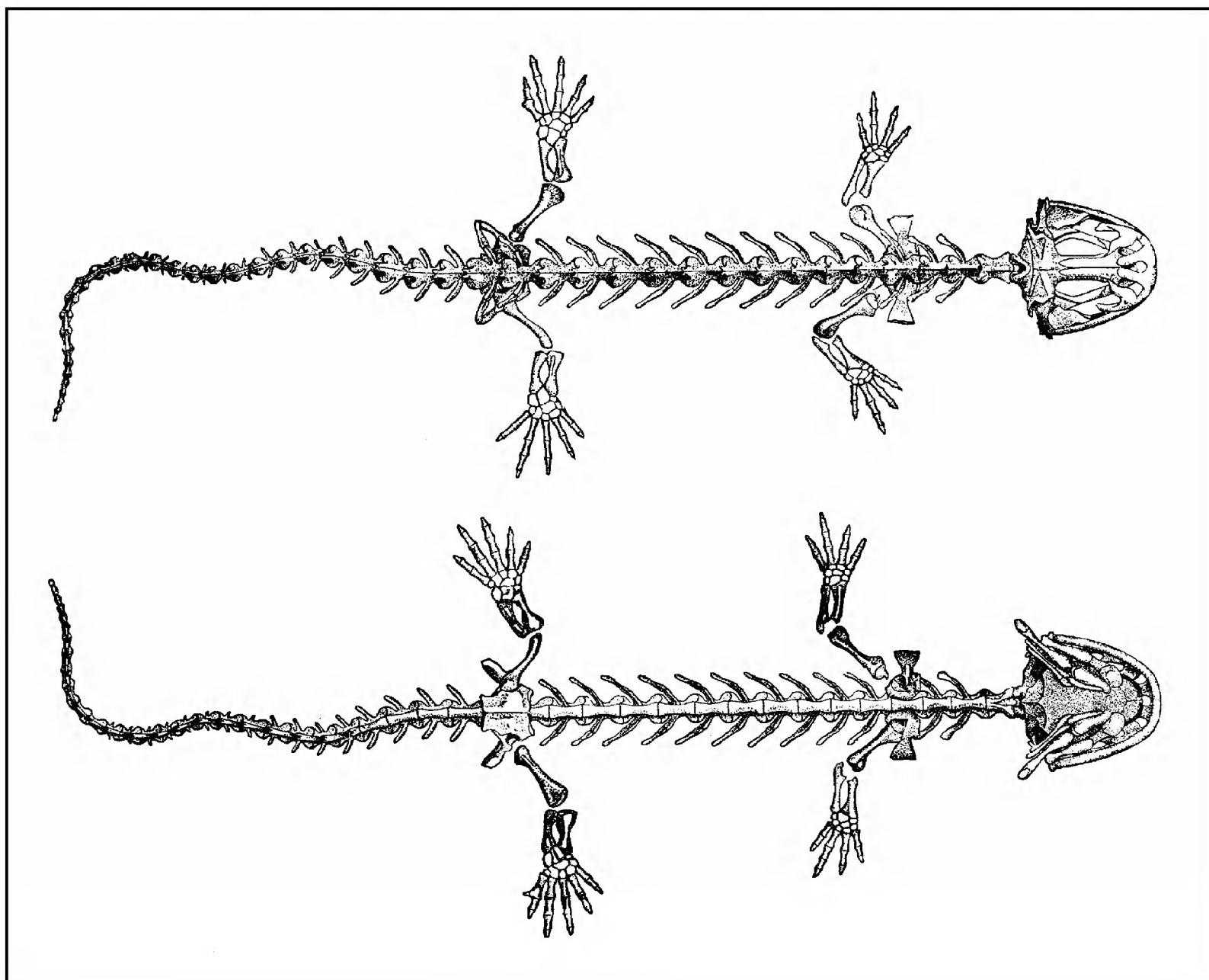

BULLETIN

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Chicago Herpetological Society



Volume 40, Number 7
July 2005



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Longevity Record for an Eastern Painted Turtle

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On 19 May 2004 a worker at the U.S. Army's Aberdeen Proving Ground in Harford County, Maryland, presented me with an adult female eastern painted turtle, *Chrysemys picta picta*, that he encountered crossing a road on the property. The turtle had been marked in the early 1970s as part of a long-term multi-species study conducted there. Based upon this turtle's estimated age, it seems likely that individual painted turtles may survive for half a century or more.

I am currently studying insular populations of turtles along the northern reaches of the Chesapeake Bay. Because the site is part of Aberdeen Proving Ground, it has been off limits to the public and its wetlands have been protected since at least the 1960s. The terrain abounds in second growth wooded wetlands and has a small number of man-made ponds resulting from road construction projects during the last decade.

As part of a long-term study on the turtles of this area, F. Prescott Ward marked 901 painted turtles between April 1970 and May 1974 (Ward, 1979). Four hundred and thirty-five of these animals were captured on multiple occasions. The total number of captures and recaptures totaled 1,890 encounters. The study was driven by the need for field research following several decades of testing of chemical warfare agents on the site.

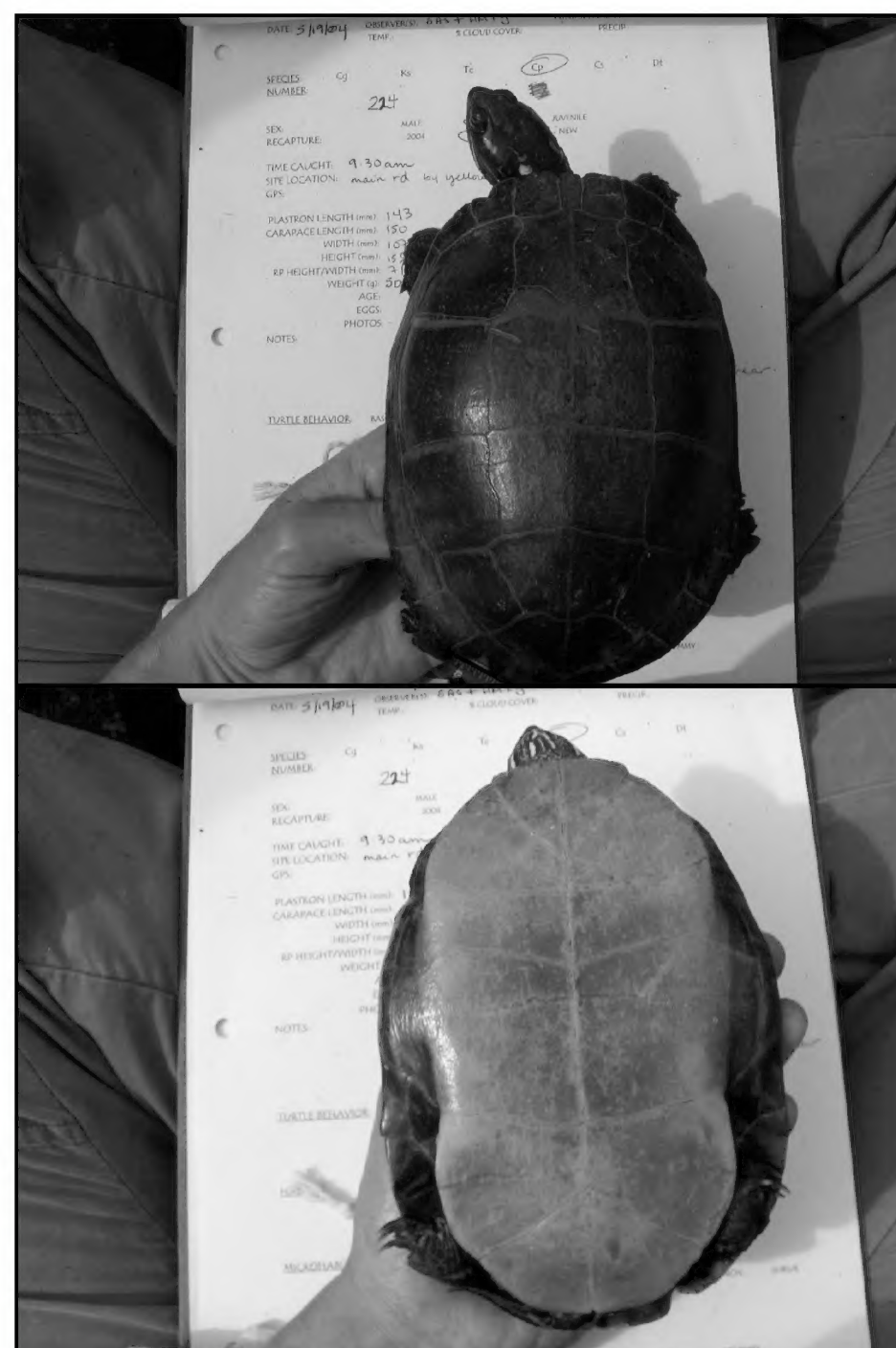
This recaptured individual was found on a road immediately adjacent to a pond where she had originally been dredged from the bottom while hibernating on 24 January 1972, and on the same road where she was recaptured on 15 April 1974. The original notches filed into her marginal scutes were clearly visible and she was identified as number 224. This turtle was first marked as an adult 32 years and 3 months previously.

Ernst et al. (1994) reviewed available information on the longevity of painted turtles. Much of this information pertains to the nominate race. Ernst marked and recaptured painted turtles in Pennsylvania that were still alive at ages of 28–31 years. Frazer et al. (1991) noted Michigan painted turtles that were 31–34 years of age and Wilbur (1975a) estimated that some painted turtles might survive for 40 years. Snider and Bowler (1992) recorded a captive *C. dorsalis* collected as an adult that lived 20 years, six months and 24 days at the Columbus Zoo.

Growth in adult painted turtles slows and essentially ceases as they age, and some adults show no growth at all from one year to the next. Zweifel (1989) provides average weights for Long Island painted turtles of different age classes and showed that females averaging 335.7 g were 10 years of age and those at 380 g were 15 years of age. Female no. 224 was 144 mm in standard carapace length (SCL) and weighed 375 g when she was first captured in 1972. On recapture in April 1974, she had grown 3 mm and weighed 374 g. This amount of growth

and the estimated age from 1972–74 would closely fit Wilbur's (1975b) calculation that turtles over ten years of age grow approximately 0.55 mm a year in more northerly populations where growth is slower. By 2004 she had increased in length by another 3 mm (150 mm SCL) and weighed 505 g. While growth rates of painted turtles vary from site to site as a result of food availability and length of growing season, the growing season in northeastern Maryland is not appreciably different from that of the southeastern Pennsylvania study site of Ernst (1971). The freshwater pools on the Proving Ground, which are shallow and not permanently full throughout the growing season, tend to be acidic and nutrient deficient. Thus, it does not seem likely that the painted turtles on this site grow faster than those in other areas. Ward's unpublished recapture data support this (on file at The Tortoise Reserve, White Lake, North Carolina).

Based on the known ages and sizes of eastern painted turtles documented in other studies, and on the growth records of other recaptured individuals at the Aberdeen Proving Ground



Dorsal and ventral views of female eastern painted turtle number 224.

site, the turtle discussed here was most likely at least 15 years of age at the time of initial capture making her a minimum of 47 years by 2004. That this individual was healthy, and in fact showed no indication of her advanced age in her overall appearance, suggests that this age is not singular. She did not look particularly older than other adult painted turtles I found on this island. Therefore, it is reasonable to assume that given habitat stability, painted turtles on occasion and perhaps regu-

larly live for 50 years and more.

Acknowledgments

My appreciation to F. Prescott Ward for making his data available to the Tortoise Reserve. Thanks also to Dave Lee, Henry Merchant, Jim Bailey and the staff at Aberdeen Proving Ground for their assistance and support throughout; in particular I thank Jim Rehak who brought me turtle 224.

Literature Cited

- Ernst, C. H. 1971. Growth of the painted turtle, *Chrysemys picta*, in southeastern Pennsylvania. *Herpetologica* 27(2):135-141.
- Ernst, C. H., J. B. Lovich and R. W. Barbour. 1994. *Turtles of the United States and Canada*. Washington, D.C.: Smithsonian Institution Press.
- Frazer, N. B., J. W. Gibbons and J. L. Greene. 1991. Growth, survivorship, and longevity of painted turtles, *Chrysemys picta*, in a southwestern Michigan marsh. *Amer. Midl. Natur.* 125:245-258.
- Snider, A. T., and J. K. Bowler. 1992. Longevity of reptiles and amphibians in North American collections, second edition. *Soc. Stud. Amphib. Rept. Herpetol Circ.* (21):1-40.
- Ward, F. P. 1979. Disparities in turtle populations on Carroll Island, Maryland, as a measure of past environmental impacts. Unpublished PhD Dissertation, The Johns Hopkins University, Baltimore, Maryland, 163 pp.
- Wilbur, H. M. 1975a. The evolutionary and mathematical demography of the turtle *Chrysemys picta*. *Ecology* 56:64-77.
- . 1975b. A growth model for the turtle *Chrysemys picta*. *Copeia* 1975(2):337-343.
- Zweifel, R. G. 1989. Long-term ecological studies on a population of painted turtles, *Chrysemys picta*, on Long Island, New York. *Amer. Mus. Novitates* (2952):1-55.

Herping in Australia—Field Notes and More

Part 3: Hunting for Sydney's Lizards, a By-product of Snake-hunting

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Besides there being snakes around, Sydney, there's also the lizards. I mention them here as a second thought, because the reality is that is what they usually are! Those looking for herps in the bushland around Sydney are usually after the snakes, but can't help but find the lizards as a by-product of the former.

The types of lizards usually encountered in the sandstone escarpment bushland of Sydney's national parks are totally different from those usually seen in the suburbs. Grass skinks (*Lampropholis guichenoti*), delicate skinks (*L. delicata*) and weasel skinks (*Saproscincus mustelina*) are relatively rare. By far the most dominant species is the copper-tailed skink (*Ctenotus taeniolatus*). This fast moving species is easily recognized by its longitudinal stripes down the dorsum and sides. It grows to a maximum length of about 17 cm.

In the warmer months these lizards are so fast that they become hard to capture, even if found sheltering under rocks. However during winter these lizards are dead easy to find. Preferred habitat then is the rock-on-dirt situations found behind the cliff-type rock outcrops. These lizards are for example very common on Mount Westmacott (West of Waterfall Railway Station) in the Heathcote State Park on Sydney's southern outskirts, where they are found under loose sandstone rocks that sit atop the "seas of rock" that form much of the hill.

The lizards burrow through the sandy soil under the rocks to shelter in cooler weather and at night. They can be found under these rocks any time of day during winter, but during summer only at morning and dusk. They make excellent food for small elapids, but due to the fact that they are an intermediate host for many parasites, it is best that they be frozen for a lengthy period before feeding to a snake. Even then, there is no guarantee that all parasites are dead.

Because it was possible to go to suitable areas and capture 10–20 of these lizards in the space of a few hours, I used them as a food source for young death adders (*Acanthophis antarcticus*) and desert death adders (*Acanthophis pyrrhus*), and/or when switching them to mice.

How I did this would take a bit of explanation, but suffice to say that 10–20 copper-tailed skinks would almost certainly be enough to get me through the hoops in terms of raising a litter of 12 death adders and having them all successfully switched to feeding on mice.

Laws in New South Wales now prohibit the use of feed skinks being offered to captive-held snakes. So for keepers the alternatives are either mice-or-nothing or if pushed, to use skinks and hope no one ever finds out.

For those keepers who hold species such as the Burton's

legless lizard (*Lialis burtonis*) under license, they just live and hope that the National Parks and Wildlife Service (NPWS) never read a reptile book and realize that the species feeds exclusively on lizards!

Now while copper-tailed skinks dominate the sandstone habitats to Sydney's south and north, they are not the only skink common to these areas. Another commonly seen species is the White's skink (*Egernia whitii*). This is a larger species (attaining about 35 cm in total length). It may be with or without dorsal patterning and is generally a greyish or brownish color.

While found in the same habitats and sympatrically with copper-tailed skinks (even being under the same rocks at times), the White's skink has a preference for the rock outcrops themselves, as opposed to the rocks that sit on the dirt at the back of the tops of the outcrops (which is where the copper-tailed skinks usually are). White's skinks are also fast moving and difficult to capture in warmer weather. They are also one of those reptiles on which I have seen red mites on wild specimens.

Another skink found in these same habitats is the red-throated skink (*Lampropholis platynota*). It attains about 16 cm in total length and looks essentially like an overgrown delicate skink (*L. delicata*), save for the fact it is much faster moving and in males, has a distinctive red throat.

These species are never numerous and for reasons I cannot explain are most commonly found in recently burnt habitats. There they have a preference for tin and other human rubbish as cover. Presumably they move into these newly burnt areas from other adjacent habitat and then reproduce rapidly. No doubt this would be a great area of study for an undergraduate or postgraduate student.

Ditto for the story of Sydney's bearded dragons (*Pogona barbata*) and jacky lizards (*Amphibolurus muricatus*). These two species are not commonly seen in undisturbed bushland, due to their great ability to hide. I know this, because when I had a dog trained to find reptiles by sniffing out their scent trails, he'd pull these things up at the rate of 2–3 a day in almost all areas where they occurred. Without the dog, you'd have been lucky to see one within a week of hunting them!

Both species are most commonly found in recently burnt areas. I recall once finding several bearded dragons in a burnt out patch of the Harold Reid Reserve at Castlecrag (about 10 km north of Sydney's CBD), but not finding any in the adjacent unburnt bushland. Perhaps I should rewrite the preceding to read "The dog found them and I caught them!" The bush had been burnt about a year earlier.

Then there's another interesting facet of the jacky lizards

and bearded dragons around Sydney. That is that they don't seem to occur together. Why this is so, I do not know, but I have yet to have seen both in the same areas. Most of the North Shore (including Kurrungai Chase and Garrigal National Park) is bearded dragons, while the southern national parks (Royal and Heathcote) are jacky lizards.

But the picture is not as clear as this. You see along the Lane Cover River Valley including the suburbs of Gladesville, North Ryde and Epping (all also classified as northside) are jacky lizards only, while around Liverpool/Casula in the south-west it's bearded dragons. Jumping across the block of bushland that consists of Middle Harbour and Kurrungai Chase towards the Northern Beaches, you again find pockets of jacky lizards on the beachfront areas of Long Reef and nearby areas. Head north across the Hawkesbury River to Gosford, Wyong and Wyee, you again find exclusively jacky lizards. Why there is this pattern of one or other species I do not know, but can only presume that they compete directly against one another where they occur.

Jacky lizards grow to about 40 cm in total length, while bearded dragons are much more thickset and get to about 55 cm total length.

Excluding the already mentioned eastern water dragon which is found in all parts of the Sydney region, the only other dragon lizard found around Sydney is the mountain dragon (*Tympanocryptis diemensis*). While both jacky lizards and bearded dragons have been able to hang on in decent sized areas of remnant bushland in Sydney's middle and outer areas, the mountain dragons are only to be found in the large national parks to the north and south of Sydney (as well as throughout the Blue Mountains).

Mountain dragons are the smallest species, attaining only about 18 cm in total length. Like the other two species they are fast-moving diurnal species usually caught when active. Mountain dragons do not appear to compete with the other two species as indicated by the fact that they occur in areas inhabited by either of the other species. Examples include the Royal and Heathcote National Parks, which have both mountain dragons and jackys, or Kurrungai Chase, which has both bearded dragons and mountain dragons.

Now here's how I was best able to capture these dragons when looking for them. For bearded dragons around Sydney, I can't really offer any techniques as I never looked for them. My dog was so good at finding them, I never had to look. By the time he died (from snakebite!), I was so sick of seeing bearded dragons, I never went looking for them. For jacky lizards, the best place I found for them was Wyee, along the train line about 90 km north of Sydney. The area consisted of flat to undulating open woodland largely converted to farmland and grazing country. To catch the jacky lizards you'd simply walk along the fencelines on a hot day and every couple of hundred yards you'd see a jacky perched on a fencepost. You'd then stalk and grab it.

For mountain dragons, it was slightly different, and because of the strong interest in the species, I'll give a bit more detail here. Firstly you'd pick an area of good habitat where

you knew they were in large numbers. The four hottest spots for this species I knew were as follows: 1) The swamps and heath habitat to the east of Engadine Railway Station in the Royal National Park about 25 km to Sydney's South. The area is honeycombed with car-width fire trails. On a hot day you'd simply walk along the tracks and listen very carefully for a rustle to either side. Then you'd simply look and see what made it. If it was a mountain dragon (or jacky, which was also common here), you'd then lunge into the bush and grab it. An added bonus of this area was also the large number of *huge* swamp snakes (*Hemiaspis signata*) that occurred here and were frequently found crossing the tracks.

As there seemed to be next to no cover in the form of tin, car doors and the like (see my earlier comments on this species), I never found any swamp snakes under cover.

The swamps themselves are full of small green-colored treefrogs (*Litoria fallax*), which are easily caught by day sheltering in the bullrushes. I never had trouble finding a dozen or more within a matter of minutes.

Walking the same fire trails by night I was able to find adult banjo frogs (*Limnodynastes dumerilii*) as they foraged about for food. These are large bulbous frogs which occur throughout Australia's southeast. It'd usually take an hour or two to find about half a dozen frogs on a clear summer's night. I never looked on rainy nights, but you'd expect to find more on such nights.

This area was also unusual for Sydney in that it had a sizeable population of brown toadlets (*Pseudophryne bibronii*). This is a small toadlet, which is relatively inornate and brown dorsally. It replaces the much more brightly colored red-crowned toadlet (*Pseudophryne australis*), a common Sydney endemic in areas where there is sandstone instead of clay and shale. *Pseudophryne australis* is effectively stapled to sandstone hills and often occurs in huge numbers where it breeds in soaks and small creeks.

2) At the intersection of Mona Vale Road and Forest Way at Terrey Hills in Sydney's north is an area of bushland that has since the mid 1980s been built on for commercial development. However to the northwest side of the road is Kurrungai Chase National Park and a series of fire trails run into this bush. The mountain dragons are caught using the same techniques as indicated for the Engadine site above.

If you are lucky you may even find a lace monitor (*Varanus varius*) as they are relatively common here. If you see a sheet of tin, lift it! Under tin in this area, I've caught yellow-faced whip snakes (*Demansia psammophis*), small-eyed snakes (*Rhinoplocephalus nigrescens*) and yes, you guessed it, swamp snakes!

3) The third site is the area to the east of Mount Colah Railway Station (on the main train line about 30 km north of the CBD), which is again honeycombed with fire trails and again the lizards are caught using the method indicated above.

The main creek in the area is usually full of *Heleioporus australiacus* tadpoles!

4) This is the series of fire trails on the main sandstone escarpment plateau to the immediate east of Govett's Leap just north of Blackheath, New South Wales (in the upper Blue Mountains), which is about 120 km west of Sydney's CBD by road. Again the mountain dragons are found when active in warmer weather.

An added bonus of herping here is the other highland fauna found here, that is not found in Sydney proper. Common on the rock outcrops immediately next to the waterfalls around the area are the highland water skink (*Eulamprus tympanum*) which effectively replaces the golden water skink (*E. quoyii*) from Sydney and immediate environs.

Or if you take drive about 20 km up the road to Zig-Zag Railway, just east of Lithgow, you'll find a load of sheets of tin and other rubbish littering the roadside on the way down to the supposedly historical railway track. Well I once made my own history lifting up the tin to find some white-lipped snakes (*Drysdalia coronoides*) a highland copperhead (*Austrelaps ramsayi*), and an alpine blotched bluetongue (*Tiliqua nigrolutea*).

The stone railway bridges that run over the road and the gullies are also meant to be historical, although the most notable thing I found about them was the large number of black-rock skinks (*Egernia saxatilis*) that lived in them. These were hard to capture, but I was able to dislodge a few that hid in crevices that they'd scampered into when running from me.

None of these species are typical Sydney herps, instead being restricted to the colder upper reaches of the Blue Mountains from about 80 km west of Sydney (where the altitude goes above about 800 m above sea level).

Getting back to the dragon lizards, I did once capture an adult inland bearded dragon (*Pogona vitticeps*) in a paddock at Georges Hall (near Bankstown) in Sydney's southwest, when visiting a friend's house. Actually it was my dog that found that one as well. It isn't native to Sydney, and had clearly been either released or escaped.

Sydney has heaps of escaped pets roaming the bush, which has occasionally created a few distribution record headaches for museum curators and others. However most of the time these escapees or improper releases simply hang around for a while before either dying or getting eaten by something. With the exception of a single population of highland Cunningham's skinks (*Egernia cunninghami*) near Morgan Road, Belrose, to the city's north, I know of no feral populations of snake or lizard that have become established and breeding in Sydney's bushland.

In the early 1990s a few thousand red-eared sliders (*Trachemys scripta elegans*) were imported by some Chinatown traders. A sizeable number of these, the fate of which is not completely certain, ended up in Sydney's waterways. They may in fact be establishing self-sustaining populations, which is of course something the authorities should be onto stopping.

More Lizards

There are of course other lizards found around Sydney.

One of these is the Cunningham's skink (*Egernia cunninghami krefftii*). For those that don't know, these are those large spinose skinks found in Australia and one of a number of similar species in a large genus. They are also common captives in North America and Europe. In Sydney it's the so-called sandstone form, which grows to a slightly smaller size than the nominate form (*E. cunninghami cunninghami*) from the granite belt of the Great Dividing Range that runs to the west of Sydney (starting about 125 km west of the CBD). These lizards make great captives and breed well too! Er, like Cunningham's skinks!

I had several (of both forms and the New England form) in a large outdoor pit in suburban St. Ives for many years and they bred every year. The sandstone form lives in larger sandstone rock outcrops, where it is always found sheltering in rock crevices or large slabs of rock that form the same. However the species is absent from many areas of apparently suitable habitat. Near the CBD the only area I know the species from is along Middle Harbour to the city's north. In fact Harold Reid Reserve (which borders Middle Harbour) and is a small escarpment reserve at Castlecraig in the inner north-shore, is the best area I know of to find the species. As a matter of course it is relatively unusual to see this species when herping in Sydney's bushland. However Harold Reid Reserve is blessed with a large rock ridge that runs around the top of a bushy hilltop. This outcrop has a massive population of Cunningham's skinks living in the many crevices and I was able to capture four or five lizards in an afternoon whenever I sought specimens.

Large rock outcrops of the form seen at Harold Reid Reserve are common in bushland areas throughout Sydney, but none ever seemed to have the same number of Cunningham's skinks. Excluding the Harold Reid Reserve, the best areas for Cunningham's skinks I found around Sydney were Kenthurst (near Orana Road) and Jerusalem Bay, near Cowan, in Kurringai Chase National Park. However, even in these areas, you'd be doing well to find more than two or three of these lizards in an afternoon's general herping.

Perhaps I should contrast this with the nominate subspecies (*Egernia c. cunninghami*), which is often found in massive numbers. At Jindabyne (Snowy Mountains of New South Wales) I was able to capture over 50 of these lizards in an afternoon (without a dog). I caught over 30 in a full day's hunting (with my dog) near Oberon, New South Wales, and even caught 20 in a full day's hunting (with my dog) at the Cox's River, on the main highway about 135 km west of Sydney's CBD, which is where the Granite Belt of the Great Dividing Range starts if one is headed west from Sydney.

Half a Herper?

Herpetology is an interesting science. However I find that many so-called herpers aren't really the full bit. I mean, to my view they are only half into the hobby or science. There are some who like to keep reptiles in cages, but have no interest in their habits in the wild. Then there's the reverse. Those who love to go out and find them in the bush, but would never

contemplate keeping them in captivity.

By my way of thinking, it's damned hard to get a full picture without both elements. No amount of field herping will ever give the same hands-on experience as one gets from keeping and breeding reptiles in captivity. For example, no average field herper would ever get a good idea of exactly how much a reptile will need to eat to remain healthy or be able to observe at close quarters the detail involved in the full breeding cycle, or the satisfaction at being able to create this. I know! I've done both.

And I'll let you into another secret. After many years of keeping and breeding all manner of herps, I stopped doing so. Then after 18 years I decided to become a keeper again. Now in that period, I'd been constantly dealing with reptiles, both in the wild and in captivity, via other people's collections. And yes, I'd trampled through countless zoos and museums and the like to inspect yet more herps. But what stunned me when I got back into keeping herps again was how much I'd either forgotten, or forgotten in as much the significance of different things.

By way of example, no one can explain the significance of air pressure on the behavior of death adders (*Acanthophis antarcticus*) compared with keeping the snakes and seeing it all for yourself. Picking up the odd specimen on a road at night and seeing specimens in museums, zoos and the like, just doesn't quite complete the picture.

Then there's those herpers who don't take photos of all the things that count. You know what I mean, the unusual specimens, the breeding, the feeding and the like. I only realized what I'd been missing after I began to take herp photos. The regret I had was that I hadn't taken photos of herps from day one!

But even more relevant to this article is the "half-herper" theory I have with regards to the smaller species. Here in Australia most so-called herpers can rattle off all the names of all the big species like the pythons, the larger monitors and the big, deadly elapids. And yes, I suppose that's where most beginners actually start.

I recall as a youth, I learnt all these things, and yes, like many others, I thought that all small skinks were the same and not worth bothering with. Here in Australia (Sydney included) we have hundreds of different species (known) and perhaps yet more undescribed forms. This became an issue for me in about 1980 when I was thinking of doing a book about the reptiles of Sydney and adjacent areas. I thought I knew them all, until John Scanlon helped me fill in the blanks. A few species of smaller skink suddenly became 20 or more!

John helped me with the list. But that was the beginning of my problems. You see, then I had to find areas where to go to find them. Questioning of most of the other so-called herpers around Sydney tended to reveal nothing. You see most simply didn't know the difference from one species to another! Because of that, none could help me find anything as to them "all small skinks are the same."

John gave me a crash course on identifying species and

actually using the keys in Hal Cogger's books, so that I'd be able to recognize any and all small skinks I found. Suddenly the species diversity of all my old stomping grounds exploded! Those things that looked like grass skinks (*Lampropholis guichenoti*) that I was finding in the upper Blue Mountains scurrying around the suburban back yards were now *Leiolopisma entrecasteauxii*.

Then there was that time I was up at West Head during the day. Now that was unusual in itself, as it wasn't an area I actually collected in very much. You see what occurred there, I either didn't want, or could get closer to home. I wasn't even there herping. Like any red-blooded teenager I was searching for a nice secluded spot to have sex with my new girlfriend.

I saw a small skink dart across the track and as a reflex action grabbed it. I didn't know what it was and so I took it home. It keyed out as *Carlia burnetti*. This is a small, non-descript brownish colored skink of which next to nothing is known. In all probability they are fairly common around Sydney, but because hardly any so-called herpers seemed to have an interest in these smaller lizards, no one had been able to tell me where to go to find one when I'd popped the question.

And yes, in my view, once one takes an interest in these smaller and more common species, one goes from being half a herper to the full thing!

Catching to the Script

John Scanlon, now a paleontologist at the South Australian Museum, is a year or two younger than I, and when we were at school we herped together quite a deal. He fitted the profile of your typical nerd. I don't mean this in a harsh way as he's also a top bloke. But, by any standards, he was quiet and kept to himself. He also wore those big bottle-top glasses and while not a social animal, was a real genius academically.

When he got into herping, he was like every other nerd. Big on every last detail. He effectively memorized the texts of Cogger's and Worrell's books as well as just about every other notable herp publication of the time. He was able to identify blind snakes from anywhere in Australia without looking at a key—he knew them! And I have yet to meet any other person who could do that.

Anyway, when it came to looking for those smaller species of herp to photograph, John Scanlon became my most valuable aid. You see, while he wasn't unique in going far and wide in search of herps, he was almost unique among my peers in Sydney in that he actually took note of everything he found and not just the larger species.

I asked for a species *Lerista bougainvillii*. This is one of those small species of skink with reduced legs, which is effectively of no interest to 99% of so-called herpers. John told me as he knew it: "Oh yes, I once found a pair of them on top of Donkey Mountain, near Newnes." For those who don't know, that's in the upper Blue Mountains, northwest of Sydney. John pulled out his field notes, which were as ever in meticulous

detail and copied a map for me to follow to go to the exact rock outcrop where he found the lizards. “Raymond, the lizards were under slabs of rock, on dirt and the weather was cool and sunny and in the low 20s” (that’s Celsius).

Needing a photo of the species, I got in my car and went to the exact spot John told me. Guess what? I found a *Lerista bougainvillii* within minutes!

Then there were those other obscure highland species, which while not being typical of Sydney, are found within a 100 km radius of the CBD in the Blue Mountains, and hence had to be included in any regional guide to Sydney’s reptiles. John Scanlon was the one who put me onto the *Eulamprus tympanum* at Govett’s Leap and the *Egernia saxatilis* at Zig-Zag Railway.

But then there were a few other missing species. One was the skink *Pseudemoia spenceri*. This is a small lizard with a blackish dorsum and white stripes down the body. John told me: “Oh, I’ve never seen one of them in the Blue Mountains, but try Picadilly Circus. I’ve got them there.” Picadilly Circus is a forested area high up in the Brindabella Ranges, a few hundred kilometers southwest of Sydney (just west of Canberra) in the ACT. John gave me a map of where to go and what species of skink were there.

He said that the habitat was forestry land with cleared areas and treed areas. It is cold, due to the altitude and although the ground is steep there are few rocks. John told me that the skinks were most common under fallen logs and other debris at the interfaces between the two habitat types. I followed his directions and map and got exactly what he said I would.

These were the following species: *Leiopisma coventryi* (another small nondescript brown skink), *Leiopisma entrecauxii* (form B) which is yet another small nondescript brownish-grey skink and slightly larger than *L. coventryi*, *Eulamprus tympanum* (cool temperate form), which is one of those “water skinks” and of course *Pseudemoia spenceri*, which while being a small skink is larger than *L. coventryi*. (You see, they all are different!)

I went to a swamp where he recalled finding some corroboree frogs (*Pseudophryne pengilleyi*), then known merely as *P. corroboree*, but failed to find any. Why? My guess is that I was there at the wrong time of year and the local frogs had hidden somewhere that I was unable to detect.

My guess is that Picadilly Circus and nearby parts of the Brindabella Ranges would have had highland copperheads (*Austrelaps ramsayi*) and white-lipped snakes (*Drysdalia coronoides*), but I never saw any.

On the way back I stopped at Coppins Crossing, which is a generally uninteresting grazing area on the outskirts of Canberra City, ACT. The habitat is grazing country, punctuated by gullies and a moderate number of surface rocks and fallen logs. The reason I stopped there was simple. *Aprasia parapulchella*!

This is a relatively little-known legless lizard, known only from the general vicinity of Canberra and similar cooler parts

of southeastern Australia. They seem to be relatively rare everywhere. That is except for Coppins Crossing, where they are common. I stopped there and started to lift rocks and logs, and yes, within a matter of minutes I had what I wanted. I photographed the legless lizard, released it and then left. It was all too easy!

I just wish all herps were that easy to find! These legless lizards are a small, innocuous and cylindrical species readily identified by their pinkish tail. They are thought to live exclusively on ants of the genus *Iromydes*. Their distribution is thought to be tied to that of the ants. Yes, there were ants under the rock I found my legless lizard, but it was beyond me to identify them, even though they were small, black and fitted the general description of what I knew to be *Iromydes*.

Also found at Coppins Crossing were a few striped skinks (*Ctenotus robustus*). This is yet another of those smaller skinks found around Sydney, that would have had to be included in any regional field guide. They are essentially similar to the copper-tailed skink (*Ctenotus taeniolatus*) save for their larger size (up to about 30 cm total length) and the fact that they have patterning on their lateral surfaces rather than longitudinal stripes.

This species has a preference for open grassy habitats with plenty of ground cover in the form of rocks and fallen logs. As this habitat is not common around Sydney, these skinks aren’t either. In fact the only area I can ever recall seeing numbers of them are Dural and Kenthurst, some 40 km northwest of the CBD. This is an area of cleared plateaus used for grazing and therefore of generally grassy habitat, which is in turn punctuated by numerous relatively shallow sandstone gorges and gullies, which in turn reflect the habitats and herpetofauna of the major National Parks (Kurringai, Royal, etc). And yes, here you tend to find the striped skinks in areas used for grazing, not in the bushland.

Now many herpers wouldn’t remotely consider keeping smaller skinks as pets, but I must say they really do make a good alternative. I personally prefer the skinks to the geckos. The Dural/Kenthurst region of Sydney also has some other relatively unusual features in its herpetofauna. Besides the usual complement of sandstone species, other shale and clay-based species are common in the intervening elevated areas, including the brown toadlet (*Pseudophryne bibronii*) and another toadlet, *Uperoleia marmorata*. For the latter species, Dural/Kenthurst and the adjacent Arcadia are the only places close to the Sydney CBD where I have seen the species. They are invariably found breeding around farm dams and not in natural creeks and other watercourses.

Which gets me back to my half-herper idea. Those who ignore the frogs are missing out on half the story as well!

To be continued

Book Review: *Proceedings of the 3rd International Symposium on Emys orbicularis*, edited by Uwe Fritz and Peter Havaš. 2004. Biologia, Journal of the Slovak Academy of Sciences Vol. 59, Supplement 14. 209 pp. In English, Language Editor, Aaron Bauer Contact Slovak Academic Press (sap@sappress.sk) to purchase.

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This volume presents a series of short papers on the results of the Proceedings of the 3rd International Symposium on *Emys orbicularis* 18–20 April 2002 at Košice in the Slovak Republic. The results of the *Emys* Symposium at Dresden Germany, 1996 (Fritz et al., 1998) was reviewed here in 1999 (Bull. Chicago Herp. Soc. 34(5):138-139). In these two volumes, *Emys orbicularis* is considered the only species in the genus *Emys*, but many subspecies are recognized in this species. Now, however, it seems inevitable that several species of *Emys* will soon be described and I have recently been informed that Dr. Uwe Fritz has a paper in press describing a new species of *Emys* from Italy.

Turning to the new volume itself, the editors point out early that the common name “European Pond Turtle” is actually a misnomer, as the distribution of this form covers three continents, stretching from North Africa through most of Europe south of Scandinavia, and then east to the Aral Sea in central Asia. I will leave it to the readers to contemplate a better common name. The volume is composed of 28 papers under three major topics: Distribution and Habitat (9 papers), Natural History (12 papers), and Conservation and Management (7 papers).

In the Distribution and Habitat section the following geographic areas are specifically covered: the Czech Republic, Germany, Hungary, Italy (Salento, South Apulia), Portugal, and Russia (Crimea, Ukraine; Daghestan; Middle Volga River region; and South Urals). I was surprised and impressed by the number of habitats utilized by *E. orbicularis*. For instance, in Crimea, a part of the Ukraine that is surrounded by the Black Sea, 18 different habitats are utilized by *E. orbicularis* (Kotenko, pp. 33-46). These include habitats ranging from tiny ponds to large reservoirs, small mountain streams to large rivers (some with silty bottom and others with gravel bottoms), large and small marshlands, and even irrigation canals and shallow ditches.

One of the most interesting papers in this section relates to *Emys orbicularis* populations on both sides of the former Iron Curtain (Fritz et al., pp. 19–25). The study was based on mitochondrial DNA haplotype (haploid maternal cell) signatures in wild caught *Emys orbicularis*. In this study they found that the only truly endemic populations were in eastern Germany and neighboring western Poland, the other German turtles having haplotypes from different parts of the species' range. In the former East Germany, haplotypes from East Bloc Countries accessible to GDR Citizens predominate. But in the former West Germany a greater variety of haplotypes

were found, these reflecting exportations from the pet trade from the East Bloc countries as well as from German tourists in southeastern Europe and the Mediterranean.

The Distribution and Habitat section clearly demonstrates that *Emys orbicularis* populations are apparently in trouble in all regions discussed. Almost all the blame for this may be attributed to humans in one way or another as is the case in North America as well. Commercial collecting for the pet trade has been rampant and private collecting for pets and private fish ponds is a lesser problem but is still a matter of concern. *Emys orbicularis* are taken in fish traps, by fishing rods, and mass deaths occur in fish nets. Moreover, they are regularly shot by hooligans in some places. Habitat destruction is a very serious threat in these regions, and water management needs improvement in many places. Roadkill is also a problem in some areas.

Relative to nonhuman predators, egg clutches are destroyed by gerbils and crows, the young are eaten by herons and egrets, and adults are hunted by dogs, wolves, foxes, introduced raccoons and jackals. It was reported that introduced red-eared sliders compete for basking sites with *Emys orbicularis* and that where *E. orbicularis* and *Mauremys leprosa* occur together, the latter species has much wider ecological tolerances.

Turning to the Natural History section, the papers are ecologically bent. Topics include: (1) population structures of co-occurring *E. orbicularis* and *Mauremys rivulata* in western Turkey; (2) asymmetries and accessory scutes in *E. orbicularis* in Spain (incidentally, these conditions are not rare in fossil turtles); (3) home range, movements and habitat use of *E. orbicularis* in France; (4) space use strategies in a northern populations of *E. orbicularis*; (5) body size and survivorship of *E. orbicularis* in Poland; (6) occurrence and viability of introduced *E. orbicularis* in Switzerland; (7) activity cycle and reproduction of *E. orbicularis* in Slovakia; (8) age structure of relict populations of *E. orbicularis* at the northwestern boundary of its range; (9) climatic impact on reproductive success of *E. orbicularis* in Germany; (10) notes on reproduction of *E. orbicularis* in France; (11) overwintering of *E. orbicularis* in France; and (12) egg-laying, clutch size, and hatchling feeding in the Ukraine. I found these papers very interesting and although I am not principally an ecologist, they all seemed scientifically sound.

The Conservation Management section, although good, is perhaps the weakest of the three major topics in the book. This is probably because it is very difficult to form any plan

that works to restore such a widely decimated species as *Emys orbicularis*. Topics in this section include: (1) results of a re-introduction program pertaining to *E. orbicularis* in Lake Bouget, Savoie, France; (2) a management plan for *E. orbicularis* populations of the Louro river basin in Spain; (3) an action plan for *E. orbicularis* in the Valencia region of Spain; (4) conservation of *E. orbicularis* in Lubuskie province in western Poland; (5) effects of recreational fishing on survival of an *E. orbicularis* in France; (6) a computer analysis on the effect of conservation measures of northeast Germany; and (7) bacterial screening of *Trachemys scripta elegans* and *Emys orbicularis* in the Po plain in Italy. These titles are all self explanatory, but the results of these studies generally reflect

the difficulties involved in restoring *E. orbicularis* to even a semblance of its former status in the regions involved. As an example, a study of bacterial infections in the introduced Red-eared Slider (*Trachemys scripta elegans*) showed that even this most hardy of hardy turtles is unable to cope with the bacteria in the polluted Po.

I certainly recommend this volume to members of the Chicago Herpetological Society and to readers of the *Bulletin of the Chicago Herpetological Society*. The volume is written entirely in English and there is much to learn and relearn about *Emys orbicularis* in this scholarly work. Language Editor Aaron Bauer should be specially commended for his part in the production of this important contribution to herpetology.

Literature Cited

Fritz, U., U. Joger, R. Podlousky and J. Servan, eds. 1998. Proceedings of the *Emys* Symposium, Dresden 96. *Mertensiella* 10:1-302.

HerPET-POURRI

by Ellin Beltz

Only the good die young

A woman stopped her car when she saw a turtle trying to cross a highway near Fort Myers, Florida. Her six-year-old daughter jumped out even though her mother screamed at her to wait. The child was hit by an oncoming car whose driver was repentant but said she couldn't stop because the child "came out of nowhere." No charges were filed even though one of the officers described it as "tragic." [*Miami Herald*, June 8, 2005, from Alan Rigerman] Perhaps someone could endow a chair of herpetology or name a new species for heroic Miss Emily Kent, who so loved a turtle that she gave her life for it.

Snake Season Starts

- "Nothing thrills and chills quite like the sight of a snake. For most people, crossing paths with a snake is more chilling than thrilling, but for [a] local snake hunter . . . it's all thrills." [Little Rock, Arkansas *Democrat-Gazette*, May 29, 2005, from Bill Burnett]
- The *Chicago Tribune* [May 20, 2005, from Ray Boldt] reports: "After accidentally squishing a Mohave rattlesnake under the tires of his dirt bike, [a] contractor . . . whacked off its head for a souvenir. The decapitated serpent was not amused. When [the man] reached down to pluck up the head—with 3 inches of body attached—it wheeled around and chomped his left index finger." For doctors it was just another indication of the arrival of "Snake Season" in California. A snakebite specialist at Stanford University Medical Center estimated that from 7,000 to 8,000 people are bitten by venomous snakes each year in the U.S. Amazingly, less than a dozen usually die. Even the decapitator at the beginning of the article lived to drive his dirt bike again.

Poisons and traps, or tolerance?

- The U.S. Environmental Protection Agency approved the use of hydrated lime for coqui frog eradication efforts in Hawai'i. Lime is cheaper than citric acid which should help in large scale applications. [*Honolulu Star-Bulletin*, April 28, 2005, from Ms. G. E. Chow]
- Meanwhile inventive researchers in Puerto Rico developed a plastic pipe trap to catch coquis. Approximately 10-inch sections of 3/4 or half-inch diameter white plastic pipe are open on the bottom and topped with a tee fitting. The frogs crawl in, lay eggs and wait inside for the eggs to hatch. The frogs don't move when people pick up the tubes which lets them be counted or killed, your choice. The pipes have to be weathered to removed the plastic smell which apparently keeps the frogs from wanting to use them. As soon as the first crop of frogs are taken from the traps it takes about two weeks for them to be re-colonized. [*Honolulu Star-Bulletin*, April 28, 2005, from Ms. G. E. Chow]
- *USA Today* reported that some neighbors in a community on Maui get together at night to "fog frogs" with citric acid spray. One "regularly heads out wearing a gas mask, headlamp and

plastic backpack fogging machine. . . . "This is just a part of my life now," [he said]. [April 13, 2005, from Bill Burnett]

- A recent letter to the editor in the *Honolulu Advertiser* [May 14, 2005, from Ms. G. E. Chow] reads: "Paranoia and misinformation about the coqui has spread much faster and further in Hawai'i than the frog itself has. . . . Since it isn't trendy right now . . . to show appreciation for non-native species . . . [the writer claims the whole story is not being told]. . . ."

"Unlike what you've heard, the coqui does have natural predators here in Hawai'i: Rats hunt them here just as they do in the frogs' native habitat." [Ellin's note: rats are native neither to Puerto Rico nor Hawai'i having been introduced to both in the 1600s to 1800s from European sailing vessels.]

"The coqui does not sing at 90 decibels . . . [but] at about 75 decibels—the same volume as your average songbird." [Ellin's note: This would be fine if coquis sang in the daytime. A whole pond of them outside your window at night can be much more annoying than songbirds at any volume.]

"Just because the coqui eats Hawaiian insects and spiders doesn't mean it's a threat to the native ecology. Many non-native bugs compete with and eat native ones, and coquis eat them too, so the overall net effect of the coqui is unknown." [Ellin's note: He's got a point here.]

"Whether you like them or not it isn't right for anyone to make false claims and present them to the public as facts." [Ellin's note: Unfortunately your speculations aren't fact either, but it was an interesting letter anyway.]

Your tax dollars at work

"As the owner of 425 active bases and more than 10,000 training ranges, the Defense Department is widely regarded as one of the nation's leading polluters, producing vast amounts of chemicals from ordnance that leach into groundwater as well as air pollution from military vehicles. The U.S. Environmental Protection Agency lists more than 130 Superfund sites on military bases," and dozens of rare plants and animals occur on bases dotted all over the U.S. Even so, the military keeps asking for "greater latitude in complying with environmental laws." Congress has rolled back several laws which only affect animals but is holding firm on things they feel would impact human health as if humans were not animals, too. Desert tortoises, in particular, are disliked by military trainers who say the presence of the ancient animals "hinders training." [*New York Times*, May 11, 2005, from new contributor Paula Shevick] Meanwhile I recently spotted a good-ol'boy special with an interesting spin. The backless pickup truck with high mud tires and a gun rack sported a black and white bumper sticker that read "Iraq is Arabic for Vietnam."

Well guys have a "third leg," so . . .

Early in May the wire services buzzed with a story that a snake killed in Washington State had little leg buds coming off its hips. In newspaper parlance, all puns intended, this story

had legs. Or it did, until someone realized they weren't legs at all, but the dead snake's male reproductive organs called hemipenes. The story ultimately didn't have a leg to stand on, and died. [various sources: the closest to the original story and the fastest by mail came from Norman J. Scott, Jr. Mid-Columbia *Tri-City Herald* (Kennewick, Pasco and Richland, Washington State) May 6 and May 7, 2005]

Sea Turtle Nesting in an Odd-Numbered Year

- Biologists are very concerned about Florida's beaches after last year's record hurricane season and the unexplained decline in loggerhead sea turtle nests over the last decade. Despite some fluctuation, the overall trend has been down from a peak nesting of 85,988 in 1998 to an alarming 47,173 in 2004. [Orlando Sentinel, May 1, 2005, from Bill Burnett]

- Additionally, the peak of sea turtle nesting is ten days earlier on average than fifteen years ago as temperatures continue to warm earlier every year. Sea temperature is up 1.44°F for the entire Florida coast of the Atlantic Ocean. [Orlando Sentinel, May 2, 2005, from Bill Burnett] For comparison, the Earth's overall temperature warmed only one degree in the entire 20th Century.

The English Impatient

Two British tourists watched long enough to know what they were seeing then called in authorities who arrested two twenty-something Florida men on felony charges. The men allegedly lured an alligator out of a retention pond with some bread and then both men beat it to death. One of the tourists called the attack "appalling." [Orlando Sentinel, April 16, 2005, from Bill Burnett]

Determining sex of petrified *rex*

A specimen of *Tyrannosaurus rex* removed from a site so remote that the bones had to be broken for helicopter transport yielded not only soft tissue in excellent preservation but the best evidence so far for a dinosaur-bird relation as opposed to dinosaur-crocodile. It seems that this *rex* had medullary bone which is only found now in birds, not crocodiles. Medullary bone is generated by estrogen in ovulating females and is used in the egg-shell building process. Between this bone type and the occasional finding of a dinosaur "in egg," paleontologists now have another tool to determine the sex of these long-departed beasts. Dinosaur hunter Jack Horner said that they have another dozen *rex*'s in the Museum of the Rockies. He said "We're about to find out if any of them are female," and added, "I can assure you, this is one of those happenstance situations that we will create on purpose in the future."

Horner was the first paleontologist to deliberately open a dinosaur egg, a situation which he described one night as "folks waiting 100 years to open a Christmas present." As soon as he found fossilized embryos, paleontologists around the world opened other eggs and much was learned about dinosaur growth and metabolism. [Chicago Tribune, June 3, 2005, from Ray Boldt]

Stupid Human Tricks

A columnist for the *Honolulu Star-Bulletin* reports that high

altitude Andean frogs of the genus *Telmatobius* may be going extinct due to local custom of blending the frogs into cocktails which allegedly have aphrodisiacal properties. [April 28, 2005, from Ms. G. E. Chow]

Just another love bite

A man who owned a five- to six-foot-long green mamba was bitten on the hand at 5 A.M., went to the hospital without calling 911 and received antivenin. The case was considered serious. Mambas are, of course, some of the most venomous and also the fastest snakes native to their parts of Africa. [Miami Herald, June 9, 2005, from Bill Burnett] Green or black, mambas are definitely not something to trifle with in the average American home, but there are some folks who consider themselves the exceptionally blessed.

Case closed

The Scotsman who died in Arkansas last year after being bitten by a venomous snake started a huge press storm; all sorts of appalling tales and lascivious frills were added to a fairly simple story. Man is obsessed with venomous snakes. Man orders snakes. Man opens box in car. Man gets bitten. Man dies from snakebite. The coroner said there was no evidence to support any sort of fancy "suicide by snake" theory, nor was there any evidence to show what happened to the two snakes he'd ordered from the same supplier earlier — including a boomslang. [Arkansas Democrat-Gazette, June 10, 2005, from Bill Burnett]

Good neighbors

Blanding's turtles in McHenry County, Illinois, will receive a 6-acre tract of land courtesy of a mall developer who will now be able to proceed with his strip mall. According to the *Chicago Tribune*, "The developer has paid for a study of the turtles and created artificial nesting sites for them . . . [and] dug storm-water retention ponds that will help protect the marsh from seeping pollutants. . . . The neighboring marsh covers 116 acres." The mall will cover 21. The population of the yellow-throated large turtles at the marsh is considered the largest in McHenry County and perhaps the state. [June 3, 2005, from Ray Boldt] I will never forget the time when I saw a Blanding's crossing the tow-path road on the way to Split Rock. I dropped my stuff, broke into a sprint and tackled the critter like it was a football before it plopped into the I and M Canal. I didn't think they were recorded from there, so I took pictures and got all excited until I got home and checked Phil Smith's book and lo-and-behold, there was already a filled in dot for LaSalle County! Oh well. It was good exercise.

Newt challenges, snake responds

"An evolutionary arms race is underway between newts and snakes in the Pacific Northwest. . . . A toxin produced by the rough-skinned newt has triggered recent evolutionary changes several times in the garter snake. . . . Three out of four snake populations . . . have become resistant [to the toxin]. . . . One-thirtieth of the toxin inside each newt is enough to kill the average human, says the report in . . . *Nature*." [USA Today, April 7, 2005, from Bill Burnett and Ms. G. E. Chow]

Python Pete in training

Borrowing an idea that is used on Guam to fight brown tree snakes, a beagle is being trained to find Burmese pythons in Florida's Everglades where "visitors . . . hope to encounter some scary swamp creatures. But a 20-foot snake draped across a two-lane road? That's a postcard moment wildlife officials want to erase. . . . Some tourists have gotten out of their cars to move what they thought was a large branch, only to be alarmed when a huge snake slithers away," reports the *Orlando Sentinel* [March 20, 2005, from Bill Burnett]. The article adds that more than 50 Burmese pythons were removed from Everglades National Park from the mid 1990s to 2003 and 61 more were taken in 2004. This year, they've been catching one every other day. And there's no doubt anymore that they're breeding out there. There's plenty of rats, rabbits and squirrels as well as birds and other small prey items.

Hello Marin? We have a problem.

The Marin County California Municipal Water District recently discovered a problem after a herpetologist was hired to count western pond turtles in their five reservoirs. He found that most of the MWD's turtles were non-native species, including the ubiquitous red-eared slider. It seems people have been dumping unwanted pets in the reservoirs for years. [*San Francisco Chronicle*, May 16, 2005, from Mystie Rios]

Welcome back!

"After a seven-year hiatus from public view, . . . [Grand Cayman blue iguanas], the most endangered lizard in the world, are back on display at the [Shedd] Aquarium . . . [in] their new habitat . . . in celebration of the Shedd's 75th anniversary. . . . The new exhibit lets viewers see the iguanas above and below the water, but still gives . . . [them] some privacy. . . . Recent estimates suggest there may be as few as 25 of this type of iguana left in the wild," according to the *Daily Herald*, February 11, 2005, from Ray Boldt] The Shedd has two, Eleanor and Marley. Let's hope the specially made exhibit helps them produce many fertile eggs.

Back from the brink?

In late May 2005, a few Kihansi spray toads were found in the upper wet zone of the Kihansi Gorge in Tanzania, Africa. While not front page news on any paper I've yet seen, the story was one of the most Googled news stories of the month. The Kihansi Spray Toad was unknown to science until the mid 1980s when its unusual habitat, the moist and misty edges of some incredible waterfalls, was proposed for a hydropower dam site. As is typical in these cases, the dam was funded by the World Bank and several international development agencies indebting the Tanzanians to \$275 million in principal. Even though biologists found rare and unusual species, the project continued full speed through the 1990s, and in 1999 the dam began water diversions. Six months later, the river had been reduced to only one fourth its original flow and the remaining Kihansi spray toads were found clustered by the tens of thousands in the little remaining habitat. Over 90 percent of the original habitat was destroyed by desiccation nearly instantly. In July 2001, a sprinkler system was installed to attempt to return mist to the gorge, however it was silted up

and stopped working. A captive breeding program was begun along with survey work of the remaining population. The captive programs have had their ups and downs; much has been learned and much remains to learn about these tiny amphibians. But the story turns tragic when biologists were hired from several African nations to survey the gorge for remaining toads where the population had climbed back to 20,000 individuals. One or more of the imported biologists couldn't be bothered to wash their stuff before going to work at the gorge where endangered animals live and so the remaining population, having survived desiccation and habitat loss was exposed to the virulent and deadly chytrid fungus which is endemic in South Africa where several of the biologists originated. The population crashed nearly overnight to forty individuals. Then none were seen in 2004. But the good news is that a few were spotted in May 2005 so the species is not extinct in the wild, yet. [Mongo.bay, May 2005 from Google News (beta) http://news.mongabay.com/2005/0629-kihansi_spray_toad_extinction.html]

Thanks to everyone who contributed this month especially new contributor Paula Shevick who joins a long list of distinguished contributors to this column. However, the clippings envelope got emptied and as you can see I also used an article I surfed off the web. So please keep those whole pages of newspapers and magazines coming! Put your name on each piece — perhaps those pesky return address labels from holiday charities will finally find a good use — and mail to: Ellin Beltz, POB 1125, Ferndale, CA 99536. Extra bennies and a free copy of my book *Frogs, Their Inner Life Revealed* to the very first person who sends me an original, printed article about it. To read up on the book until the media campaign hits in just about 60 days go to <http://Amazon.com> and type my name in the "search" line!



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Herpetology 2005

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editor assumes full responsibility for any errors or misleading statements.

HERPETOFAUNA IN NORTHEASTERN VIETNAM

R. H. Bain and N. Q. Truong [2004, American Museum Novitates 3453:1-42] in April and May of 2000, undertook herpetological surveys of Ha Giang Province, Vietnam, near the Chinese border. Surveys concentrated on isolated forests of Mount Tay Con Linh II (contiguous with the highest peak in eastern Vietnam, Mt. Tay Con Linh). The 26-day survey yielded 36 species of amphibians and 16 species of reptiles. The collection contains elements of Himalayan as well as Indo-Malayan assemblages and documents a new country record (*Philautus rhododiscus*), eight new records east of the Red River (*Bombina microdeladigitata*, *Megophrys parva*, *Amolops chapaensis*, *Chaparana delacouri*, *Chirixalus gracilipes*, *Philautus odontotarsus*, *Polypedates dugritei*, *Rhacophorus hoanglienensis*), seven species complexes (*Fejervarya limnocharis*, *Hoplobatrachus rugulosus*, *Limnonectes kuhlii*, *Rana chloronota*, *R. maosonensis*, *Polypedates dugritei* and *P. leucomystax*), three unidentified amphibian species, and two previously undescribed species of cascade ranid (*Rana iriodes* and *Rana tabaca*). *Rana iriodes* differs from *R. daorum* and *Amolops chunganensis* in having an iridescent green-gold dorsum, orange-red dorsolateral folds, a gold-white flank spot, vomerine teeth, and webbing to toe disks. *Rana tabaca* can be differentiated from other cascade ranids by a combination of characters: mottled brown upper lip, gold lip line below the eye to the arm insertion, shagreened dorsum, dorsolateral folds and unpigmented eggs. Species accumulation curves indicate that the diversity of the region is still underestimated, which, along with the relatively extensive remnant forest, underscores the importance for a greater faunal understanding and conservation effort for the montane forests of the region. Appendices include translations of the Chinese original descriptions of three frog species: *Philautus odontotarsus*, *P. rhododiscus* and *Polypedates puerensis*.

CLASSIFYING THE PYGMY ALLIGATOR LIZARD

C. J. Conroy et al. [2005, J. Herpetology 39(1):142-147] note that morphological studies have proven inconsistent in establishing the phylogenetic placement and taxonomic assignment of the pygmy alligator lizard, *Elgaria parva*. Originally classified as *Gerrhonotus parvus* Knight and Scudday, this taxon was reassigned to *Elgaria* based on morphology. To investigate its phylogenetic affinities, the authors generated mitochondrial DNA sequence data and conducted phylogenetic analyses together with published sequences for a broad taxonomic sampling of anguillid lizards. They conducted parsimony, likelihood and Bayesian analyses of the data. Results indicate that *E. parva* forms a clade with other *Gerrhonotus* rather than *Elgaria*. Furthermore, *Elgaria* and *Gerrhonotus* are not sister taxa. Based on this new molecular evidence, the authors suggest that *E. parva* be classified as *Gerrhonotus parvus* as originally described.

ENDANGERED EGYPTIAN TORTOISES

J. Perälä [2005, Chelonian Conservation and Biology 4(4): 891-898] notes that the Egyptian tortoise, *Testudo kleinmanni* Lortet, 1883, is one of the smallest tortoises to occur in the Mediterranean region. Its northeastern populations in the Egyptian Sinai and Israel were recently described as a separate species, *Testudo wernerii* Perälä, 2001. *Testudo kleinmanni* as currently defined had a historical distribution in northern coastal Egypt with two disjunct populations in Libya. Very little is known about the biology of this species, and no field-based analyses exist on population sizes or densities. The whole Egyptian subpopulation has been extirpated in the last few decades due to agricultural practices, industrial activities, expansion of human settlements, and primarily collection for the illegal pet trade, all of which factors also affect the remaining world population in Libya. Until 2002, *T. kleinmanni* had a global IUCN Red List status of Endangered (A1abcd). The species is also listed on CITES Appendix 1. Population density data from Israel for closely related *T. wernerii* as well as recent field and locality data from Libya were applied to estimate the present population and threatened status of *T. kleinmanni*. The species' global extent of occurrence covered an estimated area of 123,610 km² less than three generations ago; today it is estimated at around 16,600 km². Within the same period population sizes are estimated to have decreased by over 85% from around 55,600 to 7500 individuals, of which ca. 5000 are adults. This figure is less than the number of animals recorded from the illegal pet trade in the 1990s alone. Fairly good habitat patches still exist in Libya but the global population of *T. kleinmanni* could realistically face extinction in less than 20 years (or in about one generation) if habitat degradation and trade cannot be stopped. Concerted conservation measures at national and international levels, and development and implementation of national legislation in Libya and Egypt are needed to save *T. kleinmanni* from extinction. *Testudo kleinmanni* qualifies for listing as Critically Endangered (A2abcd + A3d) under current IUCN Red List Criteria; a status uplist was recommended and accepted by IUCN in 2003.

ACTIVITY PATTERNS OF TEXAS HORNED LIZARDS

B. A. Moeller et al. [2005, J. Herpetology 39(2):336-339] note that the Texas horned lizard (*Phrynosoma cornutum*) is a species of special concern in Texas and the southwestern U.S. This study compared capture rates of adult female and male Texas horned lizards by time and month. Horned lizards were captured by road cruising at Chaparral Wildlife Management Area in southern Texas. A female bias was found in morning capture rates compared with evening capture rates. These sex-specific differences in timing of activity may indicate an important difference in physiological constraints on the sexes. Sex-biased movement patterns must be accounted for in population sampling and plans to conserve this imperiled species.

KEMP'S RIDLEY SEA TURTLE STATUS

R. Márquez-M. et al. [2005, Chelonian Conservation and Biology 4(4):761-766] report on the current status of the critically endangered Kemp's ridley sea turtle (*Lepidochelys kempii*). The primary nesting beach of the Kemp's ridley at Rancho Nuevo, Tamaulipas, Mexico, was not recorded until 1947 and not known to science until 1961. Conservation work started there in 1966; during the second half of the 1960s nestings of over 2000 turtles per season were recorded, but in spite of several years of protection, between 1985 and 1987 nesting abundance reached the lowest point, with an annual average of 824 nests per year. After 1988 nesting started to increase and by 2003 had reached 5373 nests per year. With Rancho Nuevo nesting females estimated at 40,000 in 1947 and recorded at a low of 343 in 1985–87, with a gradual increase to 2339 in 2003, the nesting population had a decrease of about 99% over 40 years and has now begun to recover, but is still decreased by about 94% compared to historical levels. Until 1977 daily beach patrols covered only 27 km of beach; since then the protected area has increased slowly to over 230 km, including beaches in the state of Veracruz. Between 1966 and 1977 the average number of hatchlings released annually in Rancho Nuevo was around 23,000; since 1978 this number has increased gradually—in 2003 over 470,000 hatchlings were released. Head-start and imprinting efforts as well as ex-situ captive breeding have also been undertaken. The Rancho Nuevo beach was designated a "Natural Reserve" in 1977, covering 20 km of coastline and 4 km wide. The species has also been recorded to nest on some beaches in Veracruz in Mexico and on Padre Island in Texas.

WATER CHEMISTRY AND TADPOLE DEVELOPMENT

N. M. Gerlanc and G. A. Kaufman [2005, J. Herpetology 39(2):254–265] examined how abiotic factors in the larval environment change over time and how these changes affect the growth and development of larval amphibians. Western chorus frogs, *Pseudacris triseriata*, in tallgrass prairie breed in ephemeral aquatic habitats including intermittent streams and bison wallows. Objectives were to determine whether abiotic factors in the larval environment of *P. triseriata* changed predictably as pools dried and to determine whether these changes affected growth and development of tadpoles when the environment was simulated in the laboratory. In the field studies, pH increased gradually in wallows, whereas ammonium increased in streams, as each habitat dried. In the laboratory, the authors examined the effects of increased levels of pH and ammonium on growth and development of tadpoles collected from both wallows and streams. Tadpoles collected from streams metamorphosed significantly faster in the high ammonium treatment than tadpoles from wallows. In contrast, tadpoles from wallows metamorphosed faster in the high pH treatment than tadpoles collected from streams. Growth rates of tadpoles from streams were not significantly affected by high pH, whereas those from wallows were not significantly affected by high ammonium treatments. Changes in abiotic factors over the course of the larval period may influence developmental rate and natal habitat may determine how tadpoles respond to changes in abiotic factors.

KEMP'S RIDLEY HEADSTART PROJECT

D. J. Shaver [2005, Chelonian Conservation and Biology 4(4): 846-859] reports on an experimental imprinting and headstart project that was conducted to increase Kemp's ridley sea turtle (*Lepidochelys kempii*) nesting at Padre Island National Seashore (PINS), Texas. From 1978 through 1988, 22,507 eggs were collected at Rancho Nuevo, Tamaulipas, Mexico, for experimental imprinting to PINS by exposure of the eggs to PINS sand and exposure of the resulting hatchlings to PINS sand and surf. Overall, 77.1% of the eggs hatched. The pivotal sex determining temperature for Kemp's ridley eggs was estimated to be 30.2°C and the project turtles had an overall estimated sex ratio of 1.5F:1M. From 1979 through 1989, 13,211 headstarted yearling turtles from this project were released, most into the Gulf of Mexico off south Texas. An additional 300 headstarted turtles from this project were released after 2–16 yrs in captivity. Additionally, 10,198 headstarted yearling turtles that had been obtained as hatchlings from Rancho Nuevo in 1978–80, 1983, and 1989–2000 were released, with the objective that they would return to Mexico to reproduce. Through 2004, 90% of the Kemp's ridley nests ever documented in the USA were in Texas. From 1985 through 2004, 171 confirmed Kemp's ridley nests were found on the Texas coast. From 1996 through 2004, 13 headstarted turtles that had been experimentally imprinted to PINS laid 24 clutches in south Texas. These turtles ranged from 10 to 18 yrs old when first detected nesting and were the first experimentally imprinted sea turtles confirmed to have returned to their imprinting site to nest. These turtles also represented the first confirmed nesting in the wild of headstarted sea turtles and first documentation of knownaged Kemp's ridley turtles nesting in the wild. Additionally, from 2002 through 2004, eight headstarted individuals that had been obtained from Rancho Nuevo as hatchlings laid nine clutches in Texas. Although these findings suggest that the imprinting and headstarting projects enhanced nesting numbers in south Texas, from 1986 through 2003 more adult Kemp's ridley turtles were found stranded in Texas than in any other state in the USA. Strandings became increasingly concentrated on south Texas beaches during this time, with the largest numbers found between 1994 and 2003, generally coinciding with the increased number of nests. From 1995 through 2003, 152 of the 268 stranded adult Kemp's ridleys found in the USA were on south Texas beaches; 142 of the 152 were located during times when Gulf waters off the Texas coast were open to shrimp trawling.

CUES RACCOONS USE TO FIND TURTLE NESTS

R. L. Burke et al. [2005, J. Herpetology 39(2):312–315] constructed fake turtle nests in an area heavily used by ovipositing diamond-backed terrapins (*Malaclemys terrapin*) and foraging raccoons (*Procyon lotor*), to investigate the cues used by raccoons to locate terrapin nests. Marking nests with flags did not increase predation rates, and human scent decreased predation rates. Raccoons seemed to locate nests based on soil disturbance, ocean-water scent, or a combination of these cues.

SEX DIFFERENCES IN BALL PYTHONS

F. Aubret et al. [2005, J. Herpetology 39(2):315–320] investigated sexual dimorphism in body size, body condition (body mass relative to body size), and relative head sized in 1250 field-caught *Python regius* (Togo, western Africa). Sexual dimorphism was often undetectable in neonates. By contrast, sexual dimorphism was apparent for many traits in adults. Adult females were larger and had a higher body condition than males; they also had longer jaws relative to their body size. This suggests that females and males follow different growth trajectories from birth to adulthood. In support of this, neonate females had a higher postnatal growth rate than males. Fecundity was strongly correlated with body size in females; a larger body size may be favored by fecundity selection in this sex. The data show that females mature at a large body size: 95 cm in snout–vent length. The estimated external parasite load (number of ticks) was higher in adult males than females, perhaps because males encounter more ticks during movements.

RELIABILITY OF GROWTH RING COUNTS

A. Bertolero et al. [2005, Amphibia–Reptilia 26(1):17–23] note that growth ring counts on the shell have been widely used for age estimation in chelonians. However, most studies have applied this method without proof that a 1:1 ratio between number of rings and real age exists. This study analyzed the reliability of this method for a population of Hermann’s Tortoise, *Testudo hermanni*, introduced in the Ebro Delta (NE Spain). Age estimations were obtained from direct observations of tortoises in the field in 2000 ($n = 82$) together with those from photographs of the same and other individuals of the population taken between 1991 and 2001 ($n = 356$). A second photograph was taken at one or more years after the first one for 101 individuals. Results of a linear regression analysis indicated that the method was reliable only for tortoises between 0 and 7 years old, but tended to underestimate age for those between 8 and 11 years. Since sexual maturity in this population is attained around 8 years (mean for both sexes), ring counts are only reliable for juveniles and subadults.

MATE CHOICE IN AGILE FROGS

A. Hettyey et al. [2005, Copeia 2005(2):403–408] note that mate choice in anurans is traditionally exercised exclusively by females. Recent studies have, however, pointed out, that male mate choice might occur in a wider array of frog species than previously thought. Theory predicts that male mate choice is likely to be present in a species if female fecundity is related to body size and where time invested into one mating is relatively large. The authors investigated male mating preferences in *Rana dalmatina*, a species where both assumptions were likely to be met. Although fecundity was positively correlated with size in females and amplexus does seem to last relatively long, there was no male mate choice for larger females. The authors discuss these results considering costs and benefits of mate choice and speculate that adaptations to male-male competition and avoidance of heterospecific matings with co-occurring, larger *Bufo bufo* females may have shaped the evolution of non-choosiness in *R. dalmatina* males.

NEW KINGSLAKE SPECIES FROM MEXICO

R. W. Bryson, Jr., et al. [2005, J. Herpetology 39(2): 207–214] describe *Lampropeltis webbi*, a new species of kingsnake from the Pacific versant of the Sierra Madre Occidental in western Mexico based on external morphology, scutellation, and molecular data. This species appears to be closely related to *Lampropeltis pyromelana* and *Lampropeltis mexicana*. Divergence may have resulted from geographic isolation on the west side of the Continental Divide in the Sierra Madre Occidental and subsequent adaptation to a unique ecological region. The species was named in honor of Robert G. Webb “for his countless hours of research on the herpetofauna of northwestern Mexico.” Only two specimens of this snake are so far known, both female. The holotype was found DOR on 30 June 2000. An additional specimen from the same area was later located in a small herpetological museum collection.

BOA CONSTRICTORS NOW ON ARUBA

J. S. Quick et al. [2005, J. Herpetology 39(2):304–307] report that *Boa constrictor* was first documented on the island of Aruba in April 1999. By the end of December, 2003, 273 *B. constrictor* had been captured. These snakes ranged in size from neonates (0.30 m total length) to large adults (2.8 m total length) and included at least two gravid females. *Boa constrictor* is currently distributed islandwide with the highest frequency of occurrence in the southern and southeastern portions of the island. The increasing frequency of occurrence, extensive distribution, and size diversity of *B. constrictor* indicate that a large, reproductively successful population is established on Aruba. The diet of the *B. constrictor* on Aruba was determined from the examination of stomach content and scat samples ($N = 47$). Birds comprised 40.4%, lizards 34.6% and mammals 25.0% of 52 separate prey items identified. A correlation was found between snake total length and prey mass ($r_{(28)} = 0.49$, $P < 0.01$) suggesting an ontogenetic shift in the diet at a total length of approximately 1.0 m. In view of the diverse diet and increasing population of *B. constrictor*, there is concern about the potential impact of this invasive predator on the Aruban fauna. A government instituted euthanization program for all captured *B. constrictor* has proven ineffective at controlling the population.

HERPETOFAUNA OF SOUTHERN LAOS

A. Teynié et al. [2004, Hamadryad 29(1):33–62] conducted investigations of herpetological biodiversity at two adjacent localities of southern Laos. The surveys focused on the Bolo-ven Highlands and the adjacent lowland area of Xepian National Biodiversity and Conservation Area. A preliminary list of 75 species (22 amphibians, 1 chelonian, 25 lizards and 27 snakes) is provided, of which two are undescribed, and 17 are new records for Lao PDR (five amphibians, 12 reptiles), including a snake species collected in Vientiane. Two species recorded from southern Laos belong to the Indo-Malayan fauna (*Kaloula baleata* and *Gonocephalus grandis*). A brief comparison is made with other areas of Southeast Asia. Black & white photos are included.

FACIAL LESIONS IN TURTLES

J. L. Christiansen et al. [2005, J. Herpetology 39(2):293–298] present the first report of aural abscesses in ornate box turtles, *Terrapene ornata*, and of an epidermal inclusion cyst in painted turtles, *Chrysemys picta*. These observations were made in a mark-recapture study in eastern Iowa conducted over 25 yr. Detailed records of facial lesions in these species were maintained for the last 12 yr. The prevalence of aural abscesses is lower than that reported for eastern box turtles, *T. carolina*. Aural abscesses tend to develop in ornate box turtles at least 13 years old and are more common in females than males. The cysts sometimes spontaneously resolve but, in one instance, returned after being expelled in the field. In ornate box turtles, they arise in the middle ear and displace the tympanum and its cartilaginous inner coat outward. Infection sometimes results in reactive bone formation with distortion of the cranium. Similar looking lesions arose in a painted turtle in the skin covering the tympanum, and also anterior to the ear. These were epidermal inclusion cysts and not abscessed.

TREE BUTTRESS MICROHABITATS

S. M. Whitfield and M. S. F. Piercea [2005, J. Herpetology 39(2):192–198] assessed the importance of tree buttresses as a microhabitat for leaf-litter amphibians and reptiles in a tropical wet forest in Costa Rica by making comparisons of species richness and abundance between pairs of 4×4 m leaf-litter quadrats. One quadrat in each pair contained a central buttressed tree, and the other did not. Both abundance and species richness of the herpetofauna were much greater in plots containing buttressed trees; higher species richness in buttress plots was attributed solely to greater abundance in these plots. Buttress and nonbuttress plots contained a similar species composition, but there was particularly strong use of this microhabitat by the scincid lizard *Sphenomorphus cherriei*. These results indicate that the microhabitat provided by tree buttresses forms a site of generalized high abundance for the leaf-litter herpetofauna and may contribute to localized high abundance of at least one species.

LEECHES ON FRESHWATER TURTLES

T. J. Ryan and A. Lamberta [2005, J. Herpetology 39(2):284–287] note that it is generally accepted that bottom-dwelling turtles have a higher ectoparasite load than turtles that bask because of effects of desiccation on ectoparasites, especially with regard to leeches. The authors compared number of leeches (primarily *Placobdella parasitica*) on field-caught common musk turtles (*Sternotherus odoratus*) and common map turtles (*Graptemys geographica*). The bottom-dwelling *S. odoratus* had more than 20 times the number of leeches than the basking species *G. geographica*. The authors then exposed cleaned (leech-free) turtles to leeches in mesocosms (cattle tanks) to measure the rate of colonization. In this experiment, *S. odoratus* had more than four times the number of leeches as *G. geographica* after 24 h of exposure, even though *G. geographica* were unable to bask under these experimental conditions. This suggests that desiccation alone does not explain the species-specific differences in leech loads on aquatic turtles.

SPIDER TORTOISES AND THE PET TRADE

R. C. J. Walker et al. [2004, The Herpetological Bulletin (90):2–9] report that the endemic Madagascar spider tortoise, *Pyxis arachnoides*, listed as “Vulnerable” on the IUCN Red List and included on CITES Appendix II, faces threats of habitat destruction, hunting for human consumption and collection for the exotic pet market. This study reviews all available data and literature concerning the export of this species to supply the exotic pet market. CITES has recorded movements for 3984 individuals since 1980, with a considerable increase in movements since 1998. Ninety-nine percent of individuals reported were recorded as being non-captive-bred specimens and 97% were listed for “trade” purposes, with 74% of these exported specimens sent to USA or Japan. During 2000, Madagascar exceeded its CITES export quota for the species. Problems exist with CITES reporting for *P. arachnoides* by both importing and exporting nations, with 66.6% of individuals failing to be reported correctly. Seizures of illegally transported specimens are few with only 50 such specimens officially recorded by CITES, and none officially recorded by TRAF-FIC. Smuggling, however, is believed to almost certainly occur. Madagascar’s failure in the CITES reporting system is thought to be attributed to corruption and more recently, national political instability, but improvements and conservation initiatives in recent years have been made. Overcollection for the lucrative exotic pet trade could seriously threaten the long-term survival of this species, and education and capacity building are required at both the collection and consumption ends of the industry in order to increase its chances of long-term survival.

SNAKE PREDATION AT SONGBIRD NESTS

M. M. Stake et al. [2005, J. Herpetology 39(2):215–222] reviewed 84 video observations of snakes visiting nests of four songbird species in Texas and Missouri to identify patterns of predatory behavior. Eastern ratsnakes (*Elaphe obsoleta*) were the most common species, but coachwhips, racers, kingsnakes and a garter snake also were recorded. Snakes almost always removed all nest contents during a single visit but sometimes force-fledged nestlings that were old enough to escape. During many visits late in the nestling period, snakes pinned their prey in the nest while feeding, thereby preventing many of the young from escaping. Snakes spent an average of 13 min and 23 sec at each nest (1 min and 52 sec before striking), and the duration of nocturnal visits exceeded the duration of diurnal visits. Snakes sometimes returned to empty nests after they caused failure but only after nestlings were depredated. Visits by Texas ratsnakes (*Elaphe obsoleta lindheimeri*) were mostly nocturnal, whereas visits by black ratsnakes (*Elaphe obsoleta obsoleta*), coachwhips, racers and kingsnakes were diurnal. Snake predation increased as the nesting cycle progressed with the highest rate occurring in the last few days of the nestling period. Increased predation at the end of the nestling period suggests that avian activity (i.e., feeding visits, nest defense and nestling movement) contributes to the foraging success of snakes at the study sites.

SEA TURTLES IN THE WESTERN NORTH ATLANTIC

S. J. Morreale and E. A. Standora [2005, *Chelonian Conservation and Biology* 4(4):872-882] report that juvenile Kemp's ridley (*Lepidochelys kempii*) and loggerhead turtles (*Caretta caretta*) occur in a continuous distribution from southern Atlantic waters far into northern latitudes. Each year, during warmer months, considerable numbers of juveniles of both species migrate into shallow coastal habitats in the western North Atlantic, where they remain for many weeks, foraging on a benthic diet composed mainly of crabs. During the foraging season, individuals remain local, and exhibit high growth rates. Recapture records and satellite telemetry data reveal that during the fall, both species leave colder northern waters and migrate southward along the continental shelf. After overwintering in common coastal areas, such as near Cape Canaveral, Florida, or Onslow Bay, North Carolina, individuals move northward and again enter coastal bays and estuaries. Studies over recent years in the western North Atlantic highlight the importance to both species of bay and estuarine habitats extending from Florida to New England. Management strategies and species recovery plans must include serious consideration of these crucial developmental habitats.

THE LARGE BLACK SALAMANDER PROBLEM

J. Hanken et al. [2005, *Copeia* 2005(2):227-245] point out that several populations of large (adult standard length, 43–134 mm) black salamanders of the widespread Neotropical genus *Bolitoglossa* (Plethodontidae) are known from the cordilleras of western Panamá and Costa Rica. These populations constitute at least seven species, including two recently described (*B. anthracina*, *B. copia*), one described long ago that remains poorly known (*B. nigrescens*), and three described in this paper as new. The long-recognized, wide-ranging *B. robusta*, which is distinguished by a pale, pigmented ring around the tail base and a unique combination of maxillary and vomerine tooth counts, may occur sympatrically with four of the other taxa. Differences in head and body form, adult size, cranial osteology, and maxillary and vomerine tooth counts separate all recognized taxa from one another. These results confirm and indeed increase the exceedingly high diversity of salamander species known from the Cordillera Talamanca-Barú of Costa Rica and Panamá, diversity that now rivals that found anywhere else in the tropics.

COTTONMOUTH BUFFER ZONES

E. D. Roth [2005, *Copeia* 2005(2):399-402] states that riparian areas alone are often insufficient for preservation of riparian taxa. Case studies on many vertebrate taxa have addressed the importance of establishing buffer zones around riparian habitats. The goal of this investigation was to build upon previous studies and assess the relative importance of buffer zones to riparian snakes. A case study was conducted on a cottonmouth (*Agkistrodon piscivorus leucostoma*) population within a stream/riparian habitat. Using radiotelemetry, the author examined the spatial distribution of males, gravid females, and nongravid females. Although 83% of all snake observations were within 10 m of the stream, population subunits exhibited

different patterns of spatial use. Gravid females provided most of the distant observations, inhabiting the surrounding terrestrial habitat up to 94 m from the shoreline. Thus, disturbances to terrestrial areas surrounding the riparian habitat would likely have the greatest impact on gravid females. These results further establish a need for buffer zones around riparian ecosystems, and highlight the importance of considering spatial use differences between population subunits when outlining buffer zone applications for conservation management.

HERPETOFAUNA OF A HONDURAN NATIONAL PARK

J. R. McCranie [2004, *The Herpetological Bulletin* (90):10-21] records 74 species of amphibians and reptiles (4 salamanders, 24 anurans, 1 turtle, 15 lizards and 30 snakes) from Parque Nacional Cerro Azul, located in the northwestern portion of the Honduran department of Copán. The park has an area of about 155 km² of mountainous terrain located in the Premontane Wet Forest and Lower Montane Wet Forest formations. Elevations in the park range from 770 to 2285 m. Lower elevations of the park are subject to the Intermediate Wet climate and the higher elevations to the Highland Wet climate. Population declines or disappearances of 23.0% of the herpetofaunal species are documented in the park. Only 21.6% of the entire Honduran mainland and insular herpetofauna, 36.9% of the species found in the Premontane Wet Forest formation, and 44.0% of the species found in the Lower Montane Wet Forest formation are afforded nominal protection in the park. Careful and continuing monitoring of the park's remaining herpetofaunal populations will be necessary, especially due to the severe habitat degradation resulting from continuing deforestation. *Lepidophyma mayae* is reported from Honduras for the first time.

ECOLOGY OF JAMAICAN SLIDERS

T. D. Tuberville et al. [2005, *Chelonian Conservation and Biology* 4(4):908-915] investigated populations of the Jamaican slider turtle (*Trachemys terrapen*), a species apparently endemic to Jamaica and the only native freshwater turtle species known to occur there. Fifty-four turtles were captured at four sites (three along the southern coast and one in the northwest) representing a variety of habitats, including a permanently ponded wetland, farm ponds, and a stream in karst landscape. Turtles were also found in a series of seasonal ponds where they retreat into cave refugia during dry periods when caves remain flooded, thus allowing the slider population to exist in this seasonally and landscape. The authors did not observe or capture turtles during limited sampling in a large river or a brackish mangrove swamp. Individuals from the northwest population ($n = 12$) were morphologically distinct from turtles captured along the south coast ($n = 42$) and descriptions provided in the literature for *T. terrapen*. Jamaican slider turtles are harvested incidentally by local residents wherever they are found, and concentrated populations, such as those in cave refugia, are heavily exploited. This preliminary research suggests that *T. terrapen* is a highly threatened species needing conservation action in order to ensure its persistence.

Unofficial Minutes of the CHS Board Meeting, June 17, 2005

Linda Malawy called the meeting to order at 7:33 P.M. Board members Ron Humbert, Jenny Spitzer and Steve Sullivan were absent.

Officers' Reports

Recording Secretary: Melanie Aspan read the minutes of the May 20 board meeting. Corrections were made and the minutes were approved.

Treasurer: Jim Hoffman presented the May financial statements. Preliminary information was communicated regarding reimbursement for this year's Field Museum show parking.

Membership Secretary: The CHS currently has 622 members.

Vice President: Show and Tell will take place at the July meeting and will be hosted by Deb Krohn.

Corresponding Secretary: Deb Krohn reported regarding recent calls that she has been handling.

Publications Secretary: It was announced that the CHS Website has been updated with the new officer listings.

Committee Reports

Shows: Jenny Vollman mentioned the July 9 & 10 Notebaert shows as well as the Argonne National Laboratory annual picnic on July 9. August 6 & 7 are also Notebaert dates. Linda Malawy made it known that the search is still on for a Chairperson for ReptileFest 2006.

Adoptions: Linda Malawy listed some of the animals available for adoption.

General Meetings: Sean Bober announced that the Herp of the Month for October will be animals with black and/or orange coloring. The Illinois Herp of the month for June will be Fox Snakes and will be presented by Deb Krohn.

Conservation: Linda Malawy reported on her conversations with Chris Phillips and read the letter sent intended to update as well as thank the CHS and request release of the funds the CHS is currently holding. Jim Hoffman moved that we release the funds in the Massasauga Restricted Fund as proposed by Chris Phillips' letter. Mike Dloogatch seconded the motion and it was passed unanimously. Linda also presented information regarding funds needed by the Blue Iguana Recovery Program to provide cages in order to avoid premature release of

animals currently being housed. Betsy Davis moved to send the outstanding balance in the Grand Cayman Island Blue Iguana Restricted Fund to the Blue Iguana Recovery Program. Jim Hoffman seconded the motion and it passed unanimously.

Old Business

Steve Spitzer Letter: Deb's draft was approved to be sent.

Esther Lewis Memorial Plaque: Mike Dloogatch has the layout ready and Betsy is being consulted about having the plaque made.

Neodesha Business Offer: This merchandise has arrived and an inventory has been drawn up. It was suggested that posting a list of available items on the Yahoo group might assist in moving this merchandise.

New Business:

Advertising on Kingsnake: Cindy Rampacek has arranged advertising on Kingsnake.com for our CHS purposes. She is looking for an ad to put up and will send the requirements around so that someone can put an appropriate advertisement together. This also led to an extensive discussion regarding the possibility of accepting electronic payments through our website. Jim Hoffman agreed to investigate this further and pass on the relevant information.

Ideas and Suggestions

2005 Herp Outing: Deb Krohn suggested that she may be able to arrange a visit to the privately owned Big Sand Mounds Nature Preserve in Iowa and will investigate and send information as it is available.

Nominating Committee: Linda Malawy announced that this committee is almost complete for this year. Zorina Banas, Betsy Davis, Bob Bavirsha and Rich Crowley have already agreed to serve as members.

Roundtable

Dave McGowan expressed his interest in expanding the Midwestfrogs.com website efforts to include a Hellbender site.

The meeting was adjourned at 9:27 P.M.

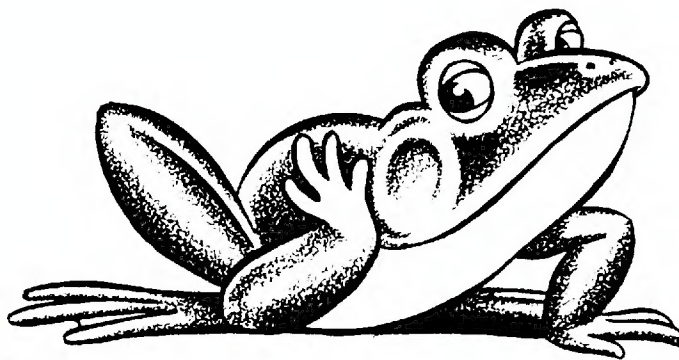
Respectfully submitted by Melanie Aspan, Recording Secretary.

The Tympanum

Dear CHS Board Members:

Linda Malawy notified me that you are ready to distribute the \$1300 proceeds from the massasauga research fund. I would like to propose using the funds to continue to support our annual (6 consecutive years as of April!!) mark-recapture effort during spring egress. We have marked over 450 massasaugas to date. This past spring we captured more than 60 individuals, 14 of which were recaptures marked in previous years.

On behalf of my research team I would like to thank the Chicago Herpetological Society for their efforts to support our



research on the eastern massasauga rattlesnake. Your assistance continues to keep this important research going. We hope to continue our spring work until we have ten consecutive years of effort. This will make it the longest study of a single massasauga population. As state and federal budgets become tighter, support such as yours becomes a significant portion of our funding.

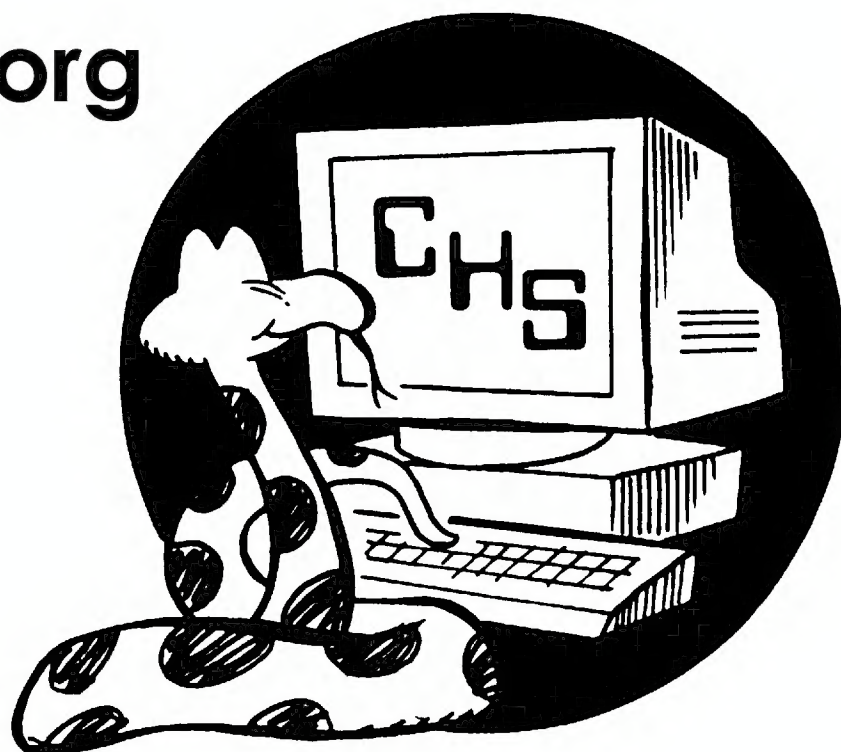
Sincerely, **Chris Phillips, Assistant Professional Scientist, Illinois Natural History Survey, 607 E. Peabody Drive, Champaign IL 61820.**

Next time you surf the WorldWide Web, crawl, run, slither, slide, jump, or hop over to the CHS web site!

www.chicagoherp.org

You'll find:

- **Announcements**
- **CHS animal adoption service**
- **CHS events calendar & information**
- **Herp news**
- **Herp links**
- **Meeting/guest speaker information**
- **Photos of Illinois amphibians & reptiles**
- **Much, much more!**



Chicagoherp.org is accepting applications for banner advertisements or links from herpetoculturists and manufacturers of herp-related products. Visit the site and contact the webmaster for details on how you can sponsor CHS!

Advertisements

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 6115 SW 137th Avenue, Archer FL 32618, (352) 495-9024, E-mail: GrmtRodent@aol.com.

For sale: from **The Mouse Factory**, producing superior quality, frozen feeder mice and rats. We feed our colony a nutritionally balanced diet of rodent chow, formulated especially for us, and four types of natural whole grains and seeds. Mice starting from: pinks, \$.17 each; fuzzies, \$.24 each; hoppers, \$.30 each; weanling, \$.42; adult, \$.48. Rats: starting with pinks at \$.45 each, to XL at \$1.80 each. Discount prices available. We accept Visa, MC, Discover or money orders. PO Box 85, Alpine TX 79831. Call **toll-free** at (800) 720-0076 or visit our website: < <http://www.themousefactory.com>> .

For sale: **high quality frozen feeders**. Over a decade of production and supply. Seven sizes of mice available: small newborn pinks up to jumbo adults. Prices start at \$25 per 100. Feeders are separate in the resealable bag, not frozen together. Low shipping rates. Free price list. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 evenings and weekends.

For sale: books. *Some Common Snakes and Lizards of Australia* by David McPhee, 1963 (1959), 125 pp., many b&w photos, small, pocket-size, spine slightly scuffed, softbound, \$26; *Australia's North—A Natural History of Australia*, vol. 3 by Stanley and Kay Breeden, 1975, large book (208 10 × 12" pp.), many excellent color and b&w photos including reptiles such as geckos, monitors, pythons, turtles and crocodiles, drawings, an outstanding, detailed account of the ecology of the Northern Territory's Top End (i.e., Kakadu National Park), DJ, hardbound, \$38; *El Mundo del Zoo* by herpetologist Marcos Freiberg, 1974, 91 pp., 64 b&w and 16 color photos, in Spanish, inscribed by author, softbound, \$20; *International Zoo Yearbooks*—hardbound, DJ, special sections as follows: Vol. 11 (1971) - Marsupials; Vol. 14 (1974) - Trade and Transport of Animals; \$60 per volume. All books in excellent condition except as noted. \$2.50 postage and handling for orders under \$25, free for orders \$25 or more. William R. Turner, 7395 S Downing Circle W, Littleton, CO 80122, (303) 795-5128, e-mail: toursbyturner@aol.com.

For sale: c.b. blue-tongued skinks, *Tiliqua scincoides*, born August 2004, \$70 each. Linda Malawy, (630) 717-9955.

For sale: well started captive-hatched Sri Lankan and mainland Indian star tortoises, photos available on request. Most Sri Lankans are 2004 hatchlings. \$500 each for Sri Lankans, \$300 each for mainlands plus shipping. Limited numbers of pancake tortoise hatchlings now available, \$350 each. E-mail KKranz1@wi.rr.com or call (262) 654-6303. [WI]

For sale: c.b. '05 Jamea reticulated pythons, \$350 each plus shipping. These are hatchlings from c.b. parents. Would be glad to send pics of parents or hatchlings if requested. Jim Gaspar, (219) 696-1432, email: GASPAR5@comcast.net.

For sale: **Locale specific reticulated pythons**, c.b.b, Bali Island yellowhead retics, second clutch of offspring produced from my LTC adults. A smaller insular form, an "almost dwarf" if you will. Average adult lengths: (♀)13–14'; (♂)8–10'. Eating adult mice/rat crawlers, \$225. Also: Nonlocale "Howe" yellowhead retics, c.b.b., my bloodline, known for brilliant lemon yellow heads. A top of the line yellowhead bloodline; bred for coloration and pattern, this is a standard sized retic, eating large adult mice/weanling rats, \$150. Photos available of offspring and parents from either bloodline. Shipping available. Please contact Notah Howe with any questions or to purchase. Email: nhherp@yahoo.com.

For sale: c.b. '03 yellow anacondas, aggressive feeders, perfect health, about 2' long, \$100 each; also c.b. '04 reticulated pythons; beautiful hatchlings already feeding on adult mice. These guys are tiger siblings and are available for \$100/each as well. Personal checks, money orders and Paypal accepted. Out of state shipping available. If you have questions or would like to purchase an animal call Mark Petros, (847) 836-9426 or E-mail ballpython777@yahoo.com.

Herp Tours: Why pay more? Travel with the International Fauna Society, a 501 (c)3 not-for-profit organization, and experience the Costa Rican rainforest! Stay at the beautiful Esquinas Rainforest Lodge in the untouched herpetological paradise that is Piedras Blancas National Park. Meet new friends, relax in the naturally-filtered swimming pool or in the lush, fauna-filled tropical garden. Discounts for IFS and Chicago Herp Society members. For details, visit The International Fauna Society website at www.faunasociety.org or E-mail: info@faunasociety.org.

Herp tours: Adventure trips to **Madagascar**! Journey somewhere truly unique to seek and photograph nature on the world's least-studied mini-continent. For maximum herp fun and discovery, join Bill Love as we go where few people will ever venture in their lives. Let his experience assure a comfortable tour finding the most colorful and bizarre species on the planet! Get all the details at Blue Chameleon Ventures' comprehensive new website: < <http://www.bluechameleon.org>> , E-mail: bill@bluechameleon.org, or call (239) 728-2390.

Herp tours: The beautiful Amazon! Costa Rica from Atlantic to Pacific! Esquinas Rainforest Lodge, the Osa Peninsula, Santa Rosa National Park, and a host of other great places to find herps and relax. Remember, you get what you pay for, so go with the best! GreenTracks, Inc. offers the finest from wildlife tours to adventure travel, led by internationally acclaimed herpers and naturalists. Visit our website < <http://www.greentracks.com>> or call (800) 892-1035, e-mail: info@greentracks.com

Virtual Museum of Natural History at www.curator.org: Free quality information on animals—emphasis on herps—plus expedition reports, book reviews and links to solid information. Always open, always free.

Wanted: Volunteer to help with midwestfrogs.com web site by transcribing videotaped interviews with frog biologists (from VHS). Dave McGowan, dmcgowan3@earthlink.net.

Wanted: Female ball pythons, adults preferred but smaller animals also considered. I am a professional breeder specializing in ball pythons and I can assure you that your animal will be provided with excellent care and optimal living conditions. Mark Petros, (847) 836-9426; ballpython777@yahoo.com.

Wanted: I'm looking for my soulmate. I want to settle down to a family before it is too late. But I have this problem. . . . When we get into hobbies and interests: old popular records, jazz and show tunes, and antique electronics are fine, but when I mention turtles, "What, are you crazy?" So maybe this is a better place to look. Please don't try to separate me from my turtles—at least not most of them. If interested, please drop a line to Ellis Jones, 1000 Dell, Northbrook IL 60062, telling a bit about yourself and giving a phone number.

Line ads in this publication are run free for CHS members—\$2 per line for nonmembers. Any ad may be refused at the discretion of the Editor. Submit ads to: Michael Dloogatch, 6048 N. Lawndale Avenue, Chicago IL 60659, (773) 588-0728 evening telephone, (312) 782-2868 fax, E-mail: MADadder0@aol.com.

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, July 27, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. This will be our popular and always well-attended annual **Show & Tell** meeting. Bring an animal that you find interesting for one reason or another and be prepared to give a short (under five minutes) presentation to the group. Don't be shy. Age (yours) or commonness (the animal's) should not be a limitation. Guidelines for the occasion: don't bring venomous reptiles or endangered species, and please bring only amphibians or reptiles (this means no worms, tarantulas or other invertebrates).

The regular monthly meetings of the Chicago Herpetological Society take place at Chicago's newest museum — the **Peggy Notebaert Nature Museum**. This beautiful new building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the August 19 board meeting, to be held at the North Park Village Administration Building, 5801 North Pulaski Road, Chicago. To get there take the Edens Expressway, I-94, and exit at Peterson eastbound. Go a mile east to Pulaski, turn right and go south to the first traffic light. Turn left at the light into the North Park Village complex. At the entrance is a stop sign and a guardhouse. When you come to a second stop sign, the administration building is the large building ahead and to your left. There is a free parking lot to the left and behind the building.

The Chicago Turtle Club

The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info call Lisa Koester, (773) 508-0034, or visit the CTC website: <http://www.geocities.com/~chicagoturtle>.

HERP OF THE MONTH

Each monthly meeting will showcase a different herp. CHS members are urged to bring one specimen of the "Herp of the Month" to be judged against the entries from other CHS members. Prizes will be awarded to the top three winners as follows: 1st place—6 raffle tickets at next meeting; 2nd place—4 raffle tickets at next meeting; 3rd place—2 raffle tickets at next meeting. Here are the categories for the next two meetings: July—salamanders; August—tricolor milk- or kingsnakes.

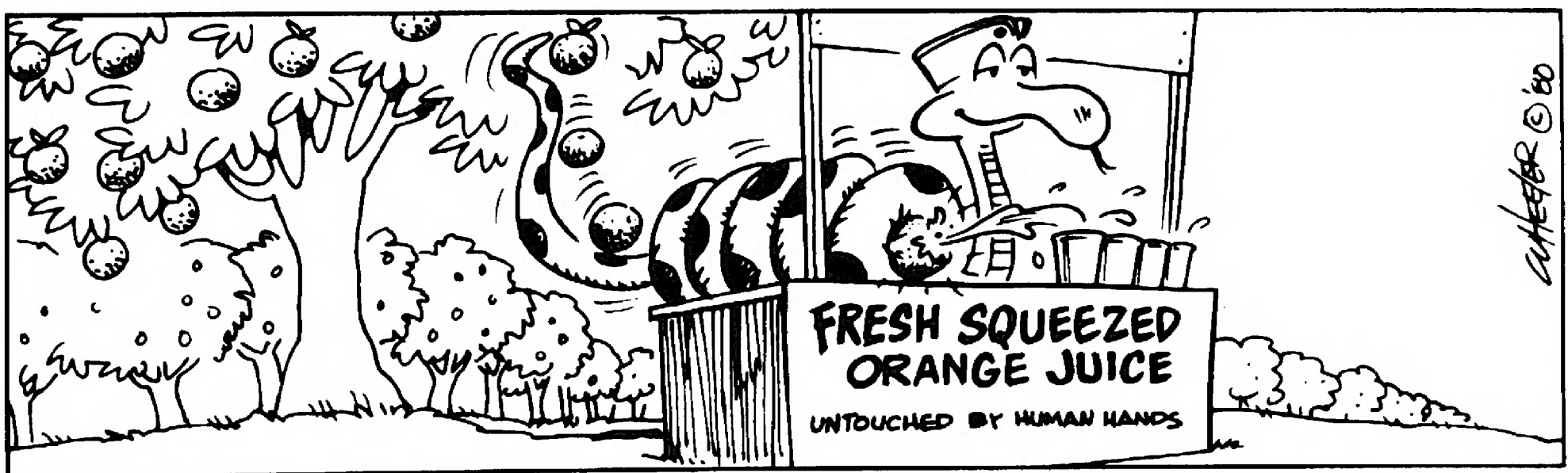
HERPING TRIP TO BIG SAND MOUNDS NATURE PRESERVE IN MUSCATINE, IOWA

The CHS has been granted access to explore the Big Sand Mounds Nature Preserve on September 10, 2005.

The Big Sand Mounds preserve is located along the Mississippi River in Muscatine, Iowa (roughly a 3½-hour drive from the Chicago area). The preserve is privately owned by Mid-American Energy Company and Monsanto Chemical Company. This 510-acre site is a rare sand prairie habitat that boasts a variety of sand-loving reptiles such as the Illinois (= yellow) mud turtle, six-lined racerunner, western hog-nosed snake, bullsnake and ornate box turtle.

This trip is open to all ages but all must be CHS members and there will be absolutely **NO** collecting allowed. Everyone over age 18 must show a valid photo ID to enter the preserve. For more information contact Deb Krohn at (815) 462-3299.

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